TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 2 AIR QUALITY (STATEWIDE)
PART 50 OIL AND GAS SECTOR – OZONE PRECURSOR POLLUTANTS

20.2.50.1 ISSUING AGENCY: Environmental Improvement Board.
[20.2.50.1 NMAC – N, XX/XX/2021]

20.2.50.2 SCOPE: This Part applies to sources located within areas of the state under the board's jurisdiction that, as of the effective date of this Part or anytime thereafter, are causing or contributing to ambient ozone concentrations that exceed ninety-five percent of the national ambient air quality standard for ozone, as measured by a design value calculated and based on data from one or more department monitors. As of the effective date, sources located in the following counties of the state are subject to this Part: ~~Chaves,~~ [1]Dona Ana, Eddy, Lea, ~~Rio Arriba,~~ [2]Sandoval, San Juan, and Valencia.

A. If, at any time after the effective date of this Part, sources in any other area(s) of the state not previously specified are determined to be causing or contributing to ambient ozone concentrations that exceed ninety-five percent of the national ambient air quality standard for ozone, as measured by a design value calculated by the U.S. Environmental Protection Agency based on data from one or more department monitors, the department shall petition the Board to amend this Part to incorporate such areas.

(1) The notice of proposed rulemaking shall be published no less than one-hundred and eighty (180) days before sources in the affected areas will become subject to this Part, and shall include, in addition to the requirements of the Board's rulemaking procedures at 20.1.1.301 NMAC:

(a) a list of the areas that the department proposed to incorporate into this Part, and the date upon which the sources in those areas will become subject to this Part; and

(b) proposed implementation dates, consistent with the time provided in the phased implementation schedules provided for throughout this Part, for sources within the areas subject to the proposed rulemaking to come into compliance with the provisions of this Part.

(2) In any rulemaking pursuant to this Section, the Board shall be limited to consideration of only those proposed changes necessary to incorporate other areas of the state into this Part.

B. Once a source becomes subject to this Part based upon its potential to emit, all requirements of this Part that apply to the source are irrevocably effective unless the source obtains a federally enforceable limit on the potential to emit that is below the applicability thresholds established in this Part, or the relevant section contains a threshold below which the requirements no longer apply.[3]
[20.2.50.2 NMAC – N, XX/XX/2021]

20.2.50.3 STATUTORY AUTHORITY: Environmental Improvement Act, Section 74-1-1 to 74-1-16 NMSA 1978, including specifically Paragraph (4) and (7) of Subsection A of Section 74-1-8 NMSA 1978, and Air Quality Control Act, Sections 74-2-1 to 74-2-22 NMSA 1978, including specifically Subsections A, B, C, D, F, and G of Section 74-2-5 NMSA 1978 (as amended through 2021).
[20.2.50.3 NMAC - N, XX/XX/2021]

20.2.50.4 DURATION: Permanent.
[20.2.50.4 NMAC - N, XX/XX/2021]

20.2.50.5 EFFECTIVE DATE: Month XX, 2022, except where a later date is specified in another Section.
[20.2.50.5 NMAC - N, XX/XX/2021]

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[1] The testimony does not support inclusion of Chaves County. There is no "design value" for Chaves County because it does not have an ambient monitor. Ahr testimony, Tr. 1:191:12-18. While the Department argues that Chaves County "contributes," that is not the test; whether it exceeds 95% of the NAAQS is the test. See NMOGA Closing Statement, § II.C, at 15-17.

[2] The testimony does not support inclusion of Rio Arriba County. All witnesses testified that the only ambient air quality monitor in Rio Arriba County has a current design value less than 95% of the ozone NAAQS and the Department conceded this. Baca testimony, Tr. 1:301:17-21. While the Department attempted to pivot to air quality control regions, this doesn't change the fact that the only monitor in Rio Arriba County does not exceed 95% of the design value. Under Section 74-2-5.C NMSA 1978, Rio Arriba County is not within the Board's jurisdiction.

[3] Wild Earth Guardians proposed that the Department be prohibited from issuing new permits in areas exceeding 95% of the primary ozone standard. The Board should not adopt this provision for the reasons outlined in the technical testimony. *See, e.g.,* Marquez testimony, Tr. 5:1476:2-5:1477:25.

20.2.50.6 OBJECTIVE: The objective of this Part is to establish emission standards for volatile organic compounds (VOC) and oxides of nitrogen (NO_x) for oil and gas production, processing, compression, and transmission sources.
[20.2.50.6 NMAC - N, XX/XX/2021]

20.2.50.7 DEFINITIONS: In addition to the terms defined in 20.2.2 NMAC - Definitions, as used in this Part, the following definitions apply.

A. "Approved instrument monitoring method" means an optical gas imaging, United States environmental protection agency (U.S. EPA) reference method 21 (RM 21) (40 CFR 60, Appendix B), or other instrument-based monitoring method or program approved by the department in advance and in accordance with 20.2.50 NMAC.[4]

B. "Auto-igniter" means a device that automatically attempts to relight the pilot flame of a control device in order to combust VOC emissions, or a device that will automatically attempt to combust the VOC emission stream.[5]

C. "Bleed rate" means the rate in standard cubic feet per hour at which gas is continuously vented from a pneumatic controller.[6]

D. "Calendar year" means a year beginning January 1 and ending December 31.[7]

E. "Centrifugal compressor" means a machine used for raising the pressure of natural gas by drawing in low-pressure natural gas and discharging significantly higher-pressure natural gas by means of a mechanical rotating vane or impeller. A screw, sliding vane, and liquid ring compressor is not a centrifugal compressor.[8]

F. "Closed vent system" means a system that is designed, operated, and maintained to route the VOC emissions from a source or process to a process stream or control device with no loss of VOC emissions to the atmosphere during operation.[9]

G. "Commencement of operation" means for an oil and natural gas well site, the date any permanent production equipment is in use and product is consistently flowing to a sales line, gathering line or storage vessel from the first producing well at the stationary source~~, but no later than the end of well completion operation~~.[10]

H. "Component" means a pump seal, flange, pressure relief device (including thief hatch or other opening on a storage vessel), connector or valve that contains or contacts a process stream with hydrocarbons, except for components where process streams consist solely of glycol, amine, produced water, or methanol.[11]

I. "Connector" means flanged, screwed, or other joined fittings used to connect pipeline segments, tubing, pipe components (such as elbows, reducers, "T's" or valves) to each other; or a pipeline to a piece of equipment; or an instrument to a pipe, tube, or piece of equipment. A common connector is a flange. Joined fittings

[4] NMED has proposed to delete this definition in its January 18, 2022 redline. NMOGA has no objection to its removal.
[5] Kuehn/Palmer Testimony, NMED Exhibit 32:14:3-6. This definition was derived in part from Colorado Reg. 7, Section I.B.5.
[6] Kuehn/Palmer Testimony, NMED Exhibit 32:14:7-9. This definition was derived in part from NSPS Subpart OOOOa, 40 CFR § 60.5430a.; Smitherman testimony, Tr. 9:12-38. Mr. Smitherman testified credibly that the changes to the rule are consistent with the fact that intermittent controllers do not have a bleed rate as they support the minimization of high-bleed controllers to only where their unique capabilities are needed for safe operations. This change is supported by substantial evidence.
[7] Kuehn/Palmer testimony, NMED Exhibit 32:14:10-11. This definition implements the commonly accepted interpretation of a calendar year.
[8] Kuehn/Palmer testimony, NMED Exhibit 32:14:12-16. This definition was derived in part from NSPS Subpart OOOOa, 40 CFR § 60.5430a.
[9] Kuehn/Palmer testimony, NMED Exhibit 32:14:17-20. This definition was derived in part from language in Colorado Reg. 7, Section I.J, and NSPS Subpart OOOOa, 40 CFR § 60.5411a(a). NMOGA supports the Department's addition of "during operation" at the end of this definition.
[10] Kuehn/Palmer testimony, NMED Exhibit 32:14:21-23, 15:1-3. This definition was derived in part from Colorado Reg. 7, Section I.B.7.; Testimony of John Smitherman, NMOGA Exhibit A1:9:40-46, 10:1-6. NMOGA requests that the last phrase be struck. Mr. Smitherman testified that there can be a significant time delay between when a first well being served by a well production facility is completed and when it begins normal production to sales. The phrase "but no later than the end of well completion operations" should therefore be struck.; Smitherman rebuttal testimony, NMOGA Exhibit 41:3:12-28. Mr. Smitherman testified that the Waste Rule by the Oil Conservation Commission may extend the delay between when a well is completed and when it begins production. By removing the last sentence, the rule will be applicable the entire time that a facility is actually producing oil, gas, or produced water production.
[11] Kuehn/Palmer testimony, NMED Exhibit 32:15:4-8. This definition was derived in part from Colorado Reg. 7, Section I.B.10.

welded completely around the circumference of the interface are not considered connectors for the purpose of this Part.[12]

J. "Construction" means fabrication, erection, or installation of a stationary source, including but not limited to temporary installations and portable stationary sources, but does not include relocations or like-kind replacements of existing equipment.[13]

K. "Control device" means air pollution control equipment or emission reduction technologies that thermally combust, chemically convert, or otherwise destroy or recover air contaminants. Examples of control devices may include but are not limited to open flares, enclosed combustion devices (ECDs), thermal oxidizers (TOs), vapor recovery units (VRUs), fuel cells, condensers, catalytic converters (oxidative, selective, and non-selective), or other emission reduction equipment. A control device may also include any other air pollution control equipment or emission reduction technologies approved by the department to comply with emission standards in this Part. A VRU or other equipment used primarily as process equipment is not considered a control device.[14]

L. "Department" means the New Mexico environment department.[15]

M. "Design value" means the 3-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration at an ambient ozone monitor[16].

N. "Downtime" means the period of time when equipment is ~~not in operation~~inoperable.[17]

O. "Enclosed combustion device" means a combustion device where waste gas is combusted in an enclosed chamber solely for the purpose of destruction. This may include, but is not limited to, an enclosed flare or combustor.[18]

P. "Existing" means constructed or reconstructed before the effective date of this Part and has not since been ~~modified or~~ [19]reconstructed.[20]

Q. "Gathering and boosting station" means a facility, including all equipment and compressors, located downstream of a well site that collects or moves natural gas prior to the inlet of a natural gas processing plant; or prior to a natural gas transmission pipeline or transmission compressor station if no gas processing is performed; or collects, moves, or stabilizes crude oil or condensate prior to an oil transmission pipeline or other form of transportation. Gathering and boosting stations may include equipment for liquids separation, natural gas dehydration, and tanks for the storage of water and hydrocarbon liquids.[21]

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[12] Kuehn/Palmer testimony, NMED Exhibit 32:15:9-14. This definition was derived in part from Colorado Reg. 7, Section I.B.11.

[13] Kuehn/Palmer testimony, NMED Exhibit 32:15:15-18. This definition was taken from the Board's regulations at 20.2.72 NMAC – *Construction Permits*.; Smitherman testimony, NMOGA Exhibit A1:10:8-42. Mr. Smitherman testified that excluding relocations and replacements in kind ensures that operating efficiently is not discouraged when another compressor is required to match changing production rates.; Smitherman rebuttal testimony, NMOGA Exhibit 41:3:29-39, 4:1-21. Mr. Smitherman testified that 20.2.72 NMAC only relates to obtaining a construction permit, and it should not apply to regulations targeting the management of ozone precursors at existing facilities. He further testified that if relocation of engines/compression equipment manufactured or remanufactured prior to the effective date of this rule causes an "existing engine" to have to meet "new engine" emissions requirements, it will disincentivize the industry from efficient and beneficial practices and will increase emissions due to 1) less optimized engine/compressor sizing and 2) less effective major maintenance.

[14] Kuehn/Palmer testimony, NMED Exhibit 32:16:1-9. This definition was derived in part from Colorado Reg. 7, Part A, Section II.A.7. Ms. Kuehn agreed that process units are not intended to be treated as control devices and this last sentence implements that discussion. Bisbey-Kuehn testimony, Tr. 6:1889:6-19.

[15] Kuehn/Palmer testimony, NMED Exhibit 32:16:10.

[16] Change added to reflect NMED testimony. Ahr testimony, Tr. 1:187:9 - 188:2.

[17] Kuehn/Palmer testimony, NMED Exhibit 32:16:11-13. This definition was derived in part from Merriam-Webster dictionary. Adjusted based on testimony that downtime should include only time the equipment is inoperable and not when it is shutoff because the controlled process unit is not operating. Bisbey-Kuehn testimony, Tr. 4:1107:1-8.

[18] Kuehn/Palmer testimony, NMED Exhibit 32:16:14-20. The definition in Part 50 was developed during rule drafting based on the knowledge and experience of NMED technical staff.

[19] The definition of "modified" was deleted and testimony of the department was that it is only regulating construction and reconstruction. *See generally,* Tr. 6:1705:13-17.

[20] Kuehn/Palmer testimony, NMED Exhibit 32:16:21-22, 17:1-2. This definition is required because the applicability of numerous requirements and timeframes in Part 50 is based on whether a source is "existing" or "new".

[21] Kuehn/Palmer testimony, NMED Exhibit 32:17:3-6. This definition was derived in part from NSPS Subpart OOOOa, 40 CFR § 60.5430a.; Testimony of John Smitherman, NMOGA Exhibit A1:11:5-18. Mr. Smitherman testified that the definitions for various facilities that are subject to this rule should conform to the actual facilities that exist in the field using terms that are familiar to the industry and inclusive of as many expected facilities as possible, in order to eliminate confusion.; Smitherman rebuttal testimony, NMOGA Exhibit 41:5:3-30. Mr. Smitherman testified that facilities upstream of transmission systems should be included in the definition, as well as Central Delivery Points where crude oil is collected from various sources for stabilization.

R. **"Glycol dehydrator"** means a device in which a liquid glycol absorbent, including ethylene glycol, diethylene glycol, or triethylene glycol, directly contacts a natural gas stream and absorbs water.[22]

S. **"High-Bleed pneumatic controller"** means a continuous bleed pneumatic controller that is designed to have a continuous bleed rate that emits in excess of 6 standard cubic feet per hour (scfh) of natural gas to the atmosphere.

T. **"Hydrocarbon liquid"** means any naturally occurring, unrefined petroleum liquid and can include oil, condensate, and intermediate hydrocarbons. Hydrocarbon liquid does not include produced water.[23]

U. **"Inactive well site"** means a well site where the well is not being used for beneficial purposes, such as production or monitoring, and is not being drilled, completed, repaired or worked over.

V. **"Injection well site"** means a well site where the well is used for the injection of air, gas, water or other fluids into an underground stratum.

W. **"Intermittent pneumatic controller"** means a pneumatic controller that is not designed to have a continuous bleed rate but is designed to only release natural gas above de minimis amounts to the atmosphere as part of the actuation cycle.

X. **"Liquid unloading"** means the removal of accumulated liquid from the wellbore that reduces or stops natural gas production.[24]

Y. **"Liquid transfer"** means the unloading of a hydrocarbon liquid from a storage vessel to a tanker truck or tanker rail car for transport.[25]

Z. **"Local distribution company custody transfer station"** means a metering station where the local distribution (LDC) company receives a natural gas supply from an upstream supplier, which may be an interstate transmission pipeline or a local natural gas producer, for delivery to customers through the LDC's intrastate transmission or distribution lines.[26]

AA. **"Low-Bleed pneumatic controller"** means a continuous bleed pneumatic controller that is designed to have a continuous bleed rate that emits less than or equal to 6 scfh of natural gas to the atmosphere.

BB. **"Natural gas-fired heater"** means an enclosed device using a controlled flame and with a primary purpose to transfer heat directly to a process material or to a heat transfer material for use in a process.[27]

CC. **"Natural gas processing plant"** means the processing equipment engaged in the extraction of natural gas liquid from natural gas or fractionation of mixed natural gas liquid to a natural gas product, or both. A Joule-Thompson valve, a dew point depression valve, or an isolated or standalone Joule-Thompson skid is not a natural gas processing plant.[28]

DD. **"New"** means constructed or reconstructed on or after the effective date of this Part.[29]

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[22] Kuehn/Palmer testimony, NMED Exhibit 32:17:7-10. This definition was derived in part from Colorado Reg. 7, Section I.B.15.

[23] Kuehn/Palmer testimony, NMED Exhibit 32:17:11-13. This definition was derived in part from Colorado Reg. 7, Section I.B.16.; Smitherman testimony, NMOGA Exhibit A1:11:10-39. Mr. Smitherman testified that produced water contains a very small amount of hydrocarbon liquids. Excluding produced water from the definition is not a conceptual change but a change to increase clarity, and it is supported by substantial evidence. Smitherman rebuttal testimony, NMOGA Exhibit 41:5:30-40.

[24] Kuehn/Palmer testimony, NMED Exhibit 32:17:14-17. This definition derived from general information on EPA's Natural Gas STAR website and the EPA publication "Options for Removing Accumulated Fluid and Improving Flow in Gas Wells" (NMED Exhibit 44).

[25] Kuehn/Palmer testimony, NMED Exhibit 32:17:18-21. This definition was derived from general information from EPA's website and EPA's AP-42 Chapter 5.2 Transportation and Marketing of Petroleum Liquids, Section 5.2.2 (NMED Exhibit 43).; Smitherman testimony, NMOGA Exhibit A1:11:41-46, 12:1-6. Similar to the definition of "hydrocarbon liquid," Mr. Smitherman testified that produced water transfer should be excluded because applying the same requirements would result in very limited emissions reductions and impose high costs on trucking companies. Smitherman rebuttal testimony, NMOGA Exhibit 41:6:6-30. Mr. Smitherman testified that there are no hydrocarbon vapors discharged when transport vehicles are unloaded to a storage vessel. The requirements for capture or control of vapors associated with storage vessels are already adequately addressed in section 20.2.50.123 – Storage Vessels.

[26] Kuehn/Palmer testimony, NMED Exhibit 32:17:22-23, 18:1-3. This definition was derived from NSPS Subpart OOOOa, 40 CFR § 60.5430a.

[27] Kuehn/Palmer testimony, NMED Exhibit 32:18:10-13. This definition was derived in part from Colorado Reg. 7., Part E, section II.A.3.p.

[28] Kuehn/Palmer testimony, NMED Exhibit 32:18:14-18. This definition was derived from the NSPS Subpart OOOOa, 40 CFR § 60.5430a.

[29] Kuehn/Palmer testimony, NMED Exhibit 32:18:19-21. This definition is required because the applicability of numerous requirements and timeframes in Part 50 is based on whether a source is "existing" or "new".

EE. "Non-Emitting controller" means a device that monitors a process parameter such as liquid level, pressure, or temperature and sends a signal to a control valve in order to control the process parameter and does not emit natural gas to the atmosphere. Examples of non-emitting controllers include but are not limited to instrument air or inert gas pneumatic controllers, electric controllers, mechanical controllers and Routed Pneumatic Controllers.

FF. "Occupied area" means the following:

(1) a building or structure used as a place of residence by a person, family, or families, and includes manufactured, mobile, and modular homes, except to the extent that such manufactured, mobile, or modular home is intended for temporary occupancy or for business purposes;

(2) indoor or outdoor spaces associated with a school that students use commonly as part of their curriculum or extracurricular activities;

(3) five-thousand (5,000) or more square feet of building floor area in commercial facilities that are operating and normally occupied during working hours: and

(4) an outdoor venue or recreation area used as a place of outdoor public assembly, such as a playground, permanent sports field, amphitheater, or similar place ~~of outdoor public assembly~~. Outdoor venue or recreation area does not include areas normally used for dispersed recreation, such as non-developed areas of national forests, parks, or similar reserves.[30]

GG. "Operator" means the person or persons responsible for the overall operation of a stationary source.[31]

HH. "Optical gas imaging (OGI)" means an imaging technology that utilizes a high-sensitivity infrared camera designed for and capable of detecting hydrocarbons.[32]

II. "Owner" means the person or persons who own a stationary source or part of a stationary source.[33]

JJ. "Permanent pit or pond" means a pit or pond used for collection, retention, or storage of produced water or brine and is installed for longer than one year.[34]

KK. "Pneumatic controller" means a device that monitors a process parameter such as liquid level, pressure, or temperature and uses pressurized gas (which may be released to the atmosphere during normal operation) and sends a signal to a control valve in order to control the process parameter. Controllers that do not utilize pressurized gas are not pneumatic controllers.[35]

LL. "Pneumatic diaphragm pump" means a positive displacement pump powered by pressurized gas that uses the reciprocating action of flexible diaphragms in conjunction with check valves to pump a fluid. A pump in which a fluid is displaced by a piston driven by a diaphragm is not considered a diaphragm pump. A lean glycol circulation pump that relies on energy exchange with the rich glycol from the contactor is not considered a diaphragm pump.[36]

MM. "Potential to emit (PTE)" means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on the hours of operation or

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[30] Language proposed to limit the scope of the vague term "recreation area," which is sometimes used to cover national forests, parks and similar areas of dispersed recreation, which is different from places of concentrated gathering suggested by the listed activities. If "recreation area" is left in place and not limited, argument could be made that most of New Mexico is an occupied area. On Day 8 of the hearing, Mr. Smitherman announced NMOGA's willingness to conduct weekly AVOs and quarterly OGI or Method 21 surveys. Tr. 8:2708:15-25 – 2712:1-9. Per the Board's request, Mr. Smitherman and NMOGA submitted proposed language. NMOGA Exhibit 64. In that proposal, Mr. Smitherman proposed striking the word "recreation area." NMOGA Exhibit 64:1:23. These changes are consistent with that adopted testimony from Mr. Smitherman.

[31] Kuehn/Palmer testimony, NMED Exhibit 32:19:1-3. The definition was derived in part from the CAA at 42 U.S.C Section 7411.

[32] Kuehn/Palmer testimony, NMED Exhibit 32:19:4-7. This definition was derived in part from Colorado Reg. 7, Section I.B.17, and NSPS Subpart OOOOa, 40 CFR § 60.5397a.

[33] Kuehn/Palmer testimony, NMED Exhibit 32:19:8-10. This definition was derived in part from the CAA at 42 U.S.C Section 7411.

[34] Kuehn/Palmer testimony, NMED Exhibit 32:19:11-14. This definition was derived in part from the New Mexico Oil Conservation Commission's ("OCC") regulations at 19.15.17 NMAC.

[35] Kuehn/Palmer testimony, NMED Exhibit 32:19:15-18. The definition was derived in part from Colorado Reg. 7, Section III.B.10.; Testimony of John Smitherman 12:25-35. Mr. Smitherman testified that this definition should be more complete since they expect different requirements on the different types of pneumatic controllers.

[36] Kuehn/Palmer testimony, NMED Exhibit 32:19:19-22, 20:1-2. This definition was derived in part from NSPS Subpart OOOOa, 40 CFR § 60.5430a.

on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation is federally enforceable. The PTE for nitrogen dioxide shall be based on total oxides of nitrogen.[37]

NN. "Produced water" means a liquid that is an incidental byproduct from well completion and the production of oil and gas.[38]

OO. "Produced water management unit" means a ~~recycling facility or a~~ permanent pit or pond that is a natural topographical depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), either of which is designed to accumulate produced water and has a design storage capacity equal to or greater than 50,000 barrels.[39]

PP. "Qualified Professional Engineer" means an individual who is licensed by a state as a professional engineer to practice one or more disciplines of engineering and who is qualified by education, technical knowledge, and experience to make the specific technical certifications required under this Part.[40]

QQ. "Reciprocating compressor" means a piece of equipment that increases the pressure of process gas by positive displacement, employing linear movement of a piston rod.[41]

RR. "Reconstruction" means a modification that results in the replacement of the components or addition of integrally related equipment to an existing source, to such an extent that the fixed capital cost of the new components or equipment exceeds fifty percent of the fixed capital cost that would be required to construct a comparable entirely new facility.[42]

~~**SS. "Recycling facility"** means a stationary or portable facility used exclusively for the treatment, re-use, or recycling of produced water and does not include oilfield equipment such as separators, heater treaters, and scrubbers in which produced water may be used.~~[43]

TT. "Responsible official" means one of the following:

(1) for a corporation: president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative.

(2) for a partnership or sole proprietorship: a general partner or the proprietor, respectively.[44]

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[37] Kuehn/Palmer testimony, NMED Exhibit 32:20:3-9. This definition was derived from the Board's air quality operating permit regulations at 20.2.70 NMAC. Wild Earth Guardians requested that this definition be revised to include pre-production operations, such as during well pad construction and drilling. Nichols testimony, Tr. 5:1300:4-14. Mr. Blewett outlined some of the practical problems with this approach. Blewett testimony, Tr. 5:1322:1-22; 5:1323:20-5:1324:24. Mr. Baca testified on behalf of NMED that the Department opposes making the definition of potential to emit inconsistent between Part 50 and the permitting programs, Baca Testimony, Tr. 5:1342:9-15, potentially interferes with another agency's jurisdiction, Baca Testimony, Tr. 5:1342:16-29, and no real evidence of equipment was introduced, Baca testimony, Tr 5:1342:20-5:1343:2. NMED also stated that this rulemaking is not intended to be about permitting. Baca testimony, Tr. 5:1345:8-16.

[38] Kuehn/Palmer testimony, NMED Exhibit 32:20:10-12. This definition was derived from the OCC's regulations at 19.15.2 NMAC. NMOGA supports the changes made by NMED. Smitherman testimony, NMOGA Exhibit A1:12: 37-47, 13:1-9. First, Mr. Smitherman testified that the word "liquid" should be used rather than "fluid." Second, liquids that are used in association with the process of drilling a new well should not be confused with "frac water" and water produced naturally along with oil and gas. Mr. Smitherman testified that the definition is clarified by striking the term "drilling for" and including liquids that stem from the completion process and from normal production after the fracture fluids have been recovered.; Smitherman rebuttal testimony, NMOGA Exhibit 41:7:32-39, 8:1-4. Mr. Smitherman testified that including liquids associated with the drilling process could lead to misapplication of rules intended for actual produced liquids including completion flowback and normal oil and gas production.

[39] Kuehn/Palmer testimony, NMED Exhibit 32:20:13-19. This definition was derived in part from the OCC's regulations at 19.15.2, 19.15.17, and 19.15.34 NMAC. The redline is supported by the testimony of industry stakeholders who have urged the Board to further protect the industry's recycling activities by excluding "recycling facility" from the definition of produced water management units. *See* Campsie testimony, CDG Exhibit B, 8:9-15; Campsie testimony, CDG Reb. Ex. B, 4:7-16; Cooper testimony, CDG Reb. Ex. E, 7:11-18.

[40] Kuehn/Palmer testimony, NMED Exhibit 32:20:20-22, 21:1-2. This definition was derived in part from NSPS Subpart OOOOa, 40 CFR § 60.5430a.

[41] Kuehn/Palmer testimony, NMED Exhibit 32:21:3-5. This definition was derived from Colorado Reg. 7, Section I.B.24.

[42] Kuehn/Palmer testimony, NMED Exhibit 32:21:6-10. This definition was derived from the Board's regulations at 20.2.72 NMAC.

[43] *See* Campsie testimony, CDG Exhibit B, 8:9-15; Campsie testimony, CDG Reb. Ex. B, 4:7-16; Cooper testimony, CDG Reb. Ex. E, 7:11-18.

[44] Kuehn/Palmer testimony, NMED Exhibit 32:21:15-21. This definition was derived from the Board's operating permit regulations at 20.2.70 NMAC.; Smitherman rebuttal testimony, NMOGA Exhibit 41:8:5-30. Mr. Smitherman testified that the added language aligns with the already established definition of responsible official found in part 70 NMAC. Furthermore, a

UU. "Routed pneumatic controller" means a pneumatic controller of any type that releases natural gas to a process, sales line, or to a combustion device instead of directly to the atmosphere.

VV. "Small business facility" means, for the purposes of this Part, a source that is independently owned or operated by a company that is a not a subsidiary or a division of another business, that employs no more than 10 employees at any time during the calendar year, and that has a gross annual revenue of less than $250,000. Employees include part-time, temporary, or limited service workers.[45]

WW. "Standalone tank battery" means a tank battery that is not designated as associated with a well site, gathering and boosting station, natural gas processing plant, or transmission compressor station.

XX. "Startup" means the setting into operation of air pollution control equipment or process equipment.[46]

YY. "Stationary Source" or **"source"** means any building, structure, equipment, facility, installation (including temporary installations), operation, process, or portable stationary source that emits or may emit any air contaminant. Portable stationary source means a source that can be relocated to another operating site with limited dismantling and reassembly.[47]

ZZ. "Storage vessel" means a single tank or other vessel that is designed to contain an accumulation of hydrocarbon liquid or produced water and is constructed primarily of non-earthen material including wood, concrete, steel, fiberglass, or plastic, which provide structural support. A well completion vessel that receives recovered liquid from a well after commencement of operation for a period that exceeds 60 days is considered a storage vessel. A storage vessel does not include a vessel that is skid-mounted or permanently attached to a mobile source and located at the site for less than 180 consecutive days, such as a truck or railcar; a process vessel such as a surge control vessel, bottom receiver, or knockout vessel; a pressure vessel designed to operate in excess of 204.9 kilopascals (29.72 psi) without emissions to the atmosphere; or a floating roof tank complying with 40 CFR Part 60, Subpart Kb.[48]

AAA. "Tank battery" means a storage vessel or group of storage vessels that receive or store crude oil, condensate, or produced water from a well or wells for storage. The owner or operator shall designate whether a tank battery is a standalone tank battery or is associated with a well site, gathering and boosting station, natural gas processing plant, or transmission compressor station. The owner or operator shall maintain records of this designation and make them available to the department upon request. A tank battery associated with a well site, gathering or boosting station, natural gas processing plant, or transmission compressor station is subject to the requirements in this Part for those facilities, as applicable. Tank battery does not include storage vessels at saltwater disposal facilities or produced water management units.[49]

BBB. "Temporarily abandoned well site" means an inactive well site where the well's completion interval has been isolated. The completion interval is the reservoir interval that is open to the borehole and is isolated when tubing and artificial equipment has been removed and a bottom plug has been set.

CCC. "Transmission compressor station" means a facility, including all equipment and compressors, that moves pipeline quality natural gas at increased pressure from a well site or natural gas processing plant through a transmission pipeline for ultimate delivery to the local distribution company custody transfer station, underground storage, or to other industrial end users. Transmission compressor stations may include equipment for liquids separation, natural gas dehydration, and tanks for the storage of water and hydrocarbon liquids.[50]

"duly authorized representative" allows for a responsible official that has a deeper understanding of what is being represented to the NMED, rather than limiting it to a representative who is in overall charge of the facility.

[45] Kuehn/Palmer testimony, NMED Exhibit 32:21:22-23, 22:1-5. This definition was developed during rule drafting by NMED technical staff and contractors.

[46] Kuehn/Palmer testimony, NMED Exhibit 32:22:6-8. This definition was derived from the Board's regulations at 20.2.7 NMAC – *Excess Emissions*.

[47] Kuehn/Palmer testimony, NMED Exhibit 32:22:9-14. This definition was derived from the Board's air quality construction permit regulations at 20.2.72 NMAC.

[48] Kuehn/Palmer testimony, NMED Exhibit 32:22:15-23, 23:1-2. This definition was derived in part from Colorado Reg. 7, Section I.B.27, and NSPS Subpart OOOOa, 40 CFR § 60.5365a.

[49] Smitherman testimony, Exhibit A1, 13:11-24. Mr. Smitherman testified that the term "tank battery" needs a clear definition because it is used in the rule multiple times. Furthermore, tanks that are associated exclusively with a salt water disposal well/facility (SWD) should not be included because produced water routed through or stored in such tanks contains mostly water with perhaps a very small skim of hydrocarbon liquid that is already flashed to a non-volatilizing liquid and therefore has very low potential for VOC emissions. Smitherman rebuttal testimony, NMOGA Exhibit 41:8:31-39, 9:1-10. Mr. Smitherman testified that without a clear definition, "tank battery" should not be used in the applicability sections of the rule. *See also* Tr. 4:1114-1120.

[50] Kuehn/Palmer testimony, NMED Exhibit 32:23:3-7.

DDD. "Vessel measurement system" means equipment and methods used to determine the quantity of the liquids inside a vessel (including a flowback vessel) without requiring direct access through the vessel thief hatch or other opening.

EEE. "Well workover" means the repair or stimulation of an existing production well for the purpose of restoring, prolonging, or enhancing the production of hydrocarbons.[51]

FFF. "Well site" means the equipment under the operator's control directly associated with one or more oil wells or natural gas wells upstream of the natural gas processing plant or gathering and boosting station, if any. A well site may include equipment used for extraction, collection, routing, storage, separation, treating, dehydration, artificial lift, combustion, compression, pumping, metering, monitoring, and product piping. A well site does not include an injection well site.[52]

[20.2.50.7 NMAC - N, XX/XX/2021]

20.2.50.8 SEVERABILITY: If any provision of this Part, or the application of this provision to any person or circumstance is held invalid, the remainder of this Part, or the application of this provision to any person or circumstance other than those as to which it is held invalid, shall not be affected thereby.
[20.2.50.8 NMAC - N, XX/XX/2021]

20.2.50.9 CONSTRUCTION: This Part shall be liberally construed to carry out its purpose.
[20.2.50.9 NMAC - N, XX/XX/2021]

20.2.50.10 SAVINGS CLAUSE: Repeal or supersession of prior versions of this Part shall not affect administrative or judicial action initiated under those prior versions.
[20.2.50.10 NMAC - N, XX/XX/2021]

20.2.50.11 COMPLIANCE WITH OTHER REGULATIONS: Compliance with this Part does not relieve a person from the responsibility to comply with other applicable federal, state, or local laws, rules or regulations, including more stringent controls.
[20.2.50.11 NMAC - N, XX/XX/2021]

20.2.50.12 DOCUMENTS: Documents incorporated and cited in this Part may be viewed at the New Mexico environment department, air quality bureau.
[20.2.50.12 NMAC - N, XX/XX/2021]
[The Air Quality Bureau is located at 525 Camino de los Marquez, Suite 1, Santa Fe, New Mexico 87505.]

20.2.23.13-20.2.23.110 [RESERVED]

20.2.50.111 APPLICABILITY:

A. This Part applies to certain crude oil and natural gas production and processing equipment associated with operations that extract, collect, separate, dehydrate, store, process, transport, transmit, or handle hydrocarbon liquids or produced water in the areas specified in 20.2.50.2 NMAC and are located at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations, up to the point of the local distribution company custody transfer station.[53]

B. In determining if any source is subject to this Part, including a small business facility as defined in this Part, the owner or operator shall calculate the Potential to Emit (PTE) of such source and shall have the PTE calculation certified by a qualified air consultant, professional engineer or ~~an~~ inhouse engineer[54] with expertise in

[51] Kuehn/Palmer testimony, NMED Exhibit 32:23:8-10. This definition was derived from the MAP report.
[52] Kuehn/Palmer testimony, NMED Exhibit 32:23:11-16. This definition was derived from Colorado Reg. 7, Section I.B.30, and NSPS Subpart OOOOa, 40 CFR § 60.5430a.; Smitherman testimony, NMOGA Exhibit A1:14:8-19. Mr. Smitherman testified that wellheads can be located on pads with no facilities other than the well itself and some (likely buried) piping, and they can also be located on pads that contain production facilities like separators, pumps, tanks, compressors, etc.
[53] NMED agreed with NMOGA's requested insertion of the word "certain" and the striking of the word "and," and the inclusion of the words "associated with." It also substituted the word "site" for stations. Tr. 4:1157.
[54] The record does not support NMED's insistence that only an engineer is qualified to calculate potential to emit. NMED's testimony is that they wanted a certain level of assurance in the design. See Bisbey-Kuehn testimony, Tr. 4:1157:17-4:1158:6; 4:1161:4-22. NMED admitted, however, that an engineer is not required for even complex permitting potential to emit

the operation of oil and gas equipment, vapor control systems, and pressurized liquid samples. The emission standards and requirements of this Part may not be considered in the PTE calculation required in this Section or in determining if any source is subject to this Part. The calculation shall be kept on file for a minimum of five years and shall be provided to the department upon request. This certified calculation shall be completed before startup for a new source and within two years of the effective date for existing sources[55].

C. An owner or operator of a small business facility as defined in this Part shall comply with the requirements of this Part as specified in 20.2.50.125 NMAC.

D. Oil transmission pipelines, oil refineries, natural gas transmission pipelines (except transmission compressor stations), and saltwater disposal facilities are not subject to this Part.

[20.2.50.111 NMAC - N, XX/XX/2021]

20.2.50.112 GENERAL PROVISIONS:

A. General requirements:

(1) Sources subject to emissions standards and requirements under this Part shall be operated and maintained consistent with manufacturer specifications, or good engineering and maintenance practices. When used in this Part, the term manufacturer specifications means either the original equipment manufacturer (or successor) emissions-related design specifications, maintenance practices and schedules, or an alternative set of specifications, maintenance practices and schedules sufficient to operate and maintain such sources in good working order, which have been approved by qualified maintenance personnel based on engineering principles and field experience. The owner or operator shall keep manufacturer specifications on file when available, as well as any alternative specifications that are being followed, and make them available upon request by the department. The terms of 20.2.50.112.A(1) apply any time reference to manufacturer specifications occurs in this Part.[56]

(2) Sources, including associated air pollution control equipment and monitoring equipment, subject to emission standards or requirements under this Part shall at all times, including periods of startup, shutdown, and malfunction, be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions of VOC and NOx. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent consistent with safety and good air pollution control practices. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions beyond levels required by the applicable standard under this Part. The terms of 20.2.50.112.A(2) apply any time reference to minimizing emissions occurs in this Part.[57]

(3) Within two years of the effective date of this Part, owners and operators of a source requiring equipment monitoring, testing, or inspection shall develop and implement a data system(s) capable of storing information for each source in a manner consistent with this section. The owner or operator shall maintain information regarding each source requiring equipment monitoring, testing, or inspection in a data system(s), including ~~at a minimum,~~ the following information and the required information specified in an applicable section of this Part[58]:

(a) unique identification number;

(b) location (latitude and longitude) of the source;

(c) type of source (e.g., tank, VRU, dehydrator, pneumatic controller, etc.);

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calculations. Bisbey-Kuehn testimony, Tr. 4:1161:23-4:1162:4. Industry representatives testified that many professional engineers have no relevant expertise and that air quality consultants or compliance specialists, versed in how the air program determines potential to emit, were likely more qualified. See Smitherman testimony, Tr. 4:1172:5-21; Marquez testimony, 5:1474:20-5:1475:25; Davis Testimony, Tr. 4:1183:4-19; 4:1184:4-20. Oxy noted that for its 645 facility and 2,745 wells, this requirement could add nearly 6,780 engineering hours, at a cost of over $800,000. Holderman testimony, Tr. 4:1195:16-4:1196:7. What is important is that the engineer, consultant or inhouse staff be appropriately trained and qualified. The proposed redline revisions make the focus on the qualification of the person performing the work and will avoid hamstringing the program.

[55] The testimony is clear that there are over a hundred thousand of pieces of equipment subject to proposed Part 50. For example, Mr. Powell testified that there are 53,338 active oil and gas wells. Powell testimony, Tr. 3:741:7-16. The LDAR testimony made it clear that each well has multiple piece of equipment. Oxy noted that for its 645 facility and 2,745 wells, this requirement could add nearly 6,780 engineering hours, at a cost of over $800,000. Holderman testimony, Tr. 4:1195:16-4:1196:7. Based upon this testimony, the EIB should provide at least two years to complete the certified calculations.

[56] Bisbey-Kuehn testimony, Tr. 5:1356:6-16.

[57] Bisbey-Kuehn testimony, Tr. 5:1357:1-2, 18-25.

[58] This change is made to reflect that the substantive sections also require information.

(d) for each source, the controlled VOC (and NO_x, if applicable) emissions in lbs./hr. and tpy;

(e) ~~for a control device, the controlled VOC and NO_x emissions in lbs./hr. and tpy;~~[59]

~~**(f)**~~ make, model, and serial number; and

(fg) a link to the manufacturer maintenance schedule or repair recommendations, or company-specific operational and maintenance practices.

(4) The data system(s) shall be maintained by the owner or operator of the facility.

(5) The owner or operator shall manage the source's record of data in the data system(s). The owner or operator shall generate a Compliance Database Report (CDR) from the information in the data system. The CDR is an electronic report maintained by the owner or operator and that can be submitted to the department upon request as required by Paragraph 3 of Subsection C and Subsection D of 20.2.50.112 NMAC.[60]

(6) The CDR is a report distinct from the owner or operator's data system(s). The department does not require access to the owner or operator's data system(s), only the CDR.

(7) The owner or operator's authorized representative must be able to access and input data in the data system(s) record for that source. That access is not required to be at any time from any location.

(8) The owner or operator shall ~~contemporaneously~~[61] track each monitoring event, and shall comply with the following:

(a) data gathered during each monitoring or testing event shall be ~~contemporaneously~~ uploaded into the data system as soon as practicable, but no later than three business days of each compliance event, and/or when the final reports are received;

(b) certain sections of this Part require a date and time stamp, including a GPS display of the location, for certain monitoring events. ~~By January 1, 2023~~No later than one year from the effective date of this Part, the department shall finalize a list of approved technologies to comply with date and time stamp requirements, and shall post the approved list on its website. Owners and operators shall comply with this requirement using an approved technology by ~~April 1, 2023~~no later than two years from the effective date of this Part.[62] Prior to such time~~April 1, 2023~~, owners and operators may comply with this requirement by making a written or electronic record of the date and time of any affected monitoring event; and

(c) data required by this Part shall be maintained in the data system(s) for at least five years.

(9) The department for good cause[63] may request that an owner or operator retain a third party at their own expense to verify any data or information collected, reported, or recorded pursuant to this Part, and make recommendations to correct or improve the collection of data or information. Such requests may be made no more than once per year. The owner or operator shall submit a report of the verification and any recommendations made by the third party to the department by a date specified and implement the recommendations in the manner approved by the department. The owner or operator may request a hearing on whether good cause was demonstrated or whether the recommendations approved by the department must be implemented.

(10) Where Part 50 refers to applicable federal standards or requirements, the references refer to the applicable federal standards or requirements that were in effect at the time of the effective date of this Part.

(11) Prior to modifying an existing source, including but not limited to increasing a source's throughput or emissions, the owner or operator shall determine the applicability of this Part in accordance with 20.2.50.111.B NMAC.

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[59] NMOGA supports this deletion as the information on emissions is found in the "source" requirement of (e).

[60] The data system(s) can be one or more systems so long as they are capable of producing the compliance data report (CDR) within the required time frame. Bisbey-Kuehn testimony, Tr. 5:1368:8-19. NMOGA also appreciates the new terminology as it eliminates possible disputes over whether a simple Excel spreadsheet is an adequate "database" under prior language. Marquez testimony, Tr. 5:1471:3-12. NMOGA is supportive of the Commercial Disposal Group's suggested language addition at the end of this provision.

[61] "Contemporaneously" is ambiguous and the required timeframe is specified in (8)(a) so the term should be deleted.

[62] As Ms. Kuehn testified, database development projects often take years. Kuehn testimony, Tr. 5:1370:3-8. The challenge is that NMED has not given "years" to develop the date and time stamp, which is one of the more technically challenging issues, but only 3 months. *See* proposed 20.2.50.112.A.(8)(b). Even if NMED is correct that a number of apps are available that might work, until the apps are identified and approved, they cannot be integrated into industry's database systems. Initially the Department suggested 3 months and now one year. Neither is enough time for such a large-scale integration project. Smitherman testimony, Tr. 5:1427:21-5:1428:25; Brown testimony, Tr. 5:1437:19-5:1439:11.

[63] For good cause is added consistent with the language allowing an operator to request a hearing on whether the department had good cause to request to the third party audit. Ms. Kuehn indicated that this was intended. Kuehn testimony, Tr. 5:1360:15-21.

B. Monitoring requirements:

(1) Unless otherwise specified, the term monitoring as used in this Part includes, but is not limited to, monitoring, testing, or inspection requirements. Unless otherwise specified in this Part, monitoring is required to commence upon the date that the associated control requirements become effective.[64]

(2) If equipment is shut down at the time of periodic testing, monitoring, or inspection required under this Part, the owner or operator shall not be required to restart the unit for the sole purpose of performing the testing, monitoring, or inspection, but shall note the shut down in the records kept for that equipment for that monitoring event.

(3) An owner or operator may submit for the department's review and approval an equally effective, enforceable, and equivalent alternative monitoring strategy ~~under 20.2.50.116 NMAC~~. Such requests shall be made on an application form provided by the department. The department shall issue a letter approving or denying the requested alternative monitoring strategy. An owner or operator shall comply with the default monitoring requirements ~~required under 20.2.50.116 NMAC~~in this Part and shall not operate under an alternative monitoring strategy until it has been approved by the department.[65]

(4) For each monitoring event, the owner, operator, or authorized representative shall monitor as required by the applicable sections of this Part.

C. Recordkeeping requirements:

(1) Within three business days of a monitoring event and when final reports are received, an electronic record shall be made of the monitoring event and shall include the information required by the applicable sections of this Part.

(2) The owner or operator shall keep an electronic record required by this Part for five years.

(3) By July 1 of each calendar year starting in 2024, the owner or operator shall generate a Compliance Database Report (CDR) on all assets under its control that are subject to the CDR requirements of this Part at the time the CDR is prepared and keep this report on file for five years.[66]

D. Reporting requirements: Within three business days of a request by the department, the owner or operator shall for each source subject to the request, provide the requested information by electronically submitting a CDR to the department's Secure Extranet Portal (SEP), or by other means and formats specified by the department in its request. If the department requests a CDR from multiple facilities, additional time will be given as appropriate.[67]

[20.2.50.112 NMAC - N, XX/XX/2021]

20.2.50.113 ENGINES AND TURBINES:

A. Applicability: Portable and stationary natural gas-fired spark ignition engines, compression ignition engines, and natural gas-fired combustion turbines located at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations, with a rated horsepower greater than the horsepower ratings of table 1, 2, and 3 of 20.2.50.113 NMAC are subject to the requirements of 20.2.50.113 NMAC. Non-road engines as defined in 40 C.F.R. §§ 1068.30 are not subject to 20.2.50.113 NMAC.[68]

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[64] This is a complex rule and it is possible that NMED and NMOGA have missed a monitoring applicability date. NMOGA proposes this "general" applicability date for monitoring in case there are any sections where the start date for monitoring is not specified clearly. The proposed language corresponds to general air pollution control practice.

[65] NMED has proposed to delete this provision. NMOGA agrees it should either be broadened or deleted. As written it duplicates a provision in 20.2.50.116 NMAC and is not needed.

[66] NMOGA appreciates NMED's clarification of the annual reporting requirement. The proposed language is consistent with the concerns and recommendations made by Mr. Smitherman. Smitherman testimony, Tr. 5:1429:14-5:1430:14. *See also* Cooper testimony, Tr. 5:1492:7-5:1493:3.

[67] NMED agreed that it "will" give additional time if multiple facility CDRs are requested. Bisbey-Kuehn testimony, Tr. 1374:10-25. In addition, to the extent that Wild Earth Guardians and others believe that additional "deviation" reporting is necessary, the benefits of that reporting are unclear, and they impose significant additional costs and burdens on both NMED and industry. Copeland testimony, Tr. 5:1456:24-5:1457:23. NMOGA dislikes the requested expansion in the Department's January 18, 2022 redline because it extends beyond the CDR. If limited to the CDR, NMOGA takes no exception. If extended beyond the CDR, there is no evidentiary record to support whether such information could be produced in such a short time fram.

[68] New Mexico is preempted from regulating most aspects of non-road engines. *See* NMOGA Brief, II.F., 22-23.. Ms. Kuehn testified that NMED agreed that "nonroad engines that are regulated by the federal government are not subject to this subpart, and we agreed with that comment, that it was correct, and so we've added this clarifying language." Kuehn/Palmer testimony, Tr. 6:1682:23-6:1683:6.

B. Emission standards:[69],[70]

(1) The owner or operator of a portable or stationary natural gas-fired spark ignition engine, compression ignition engine, or natural gas-fired combustion turbine shall ensure compliance with the emission standards by the dates specified in Subsection B of 20.2.50.113 NMAC, except as otherwise specified under an Alternative Compliance Plan approved pursuant to Paragraph (10) of Subsection B of 20.2.50.113 NMAC or alternative emissions standards approved pursuant to Paragraph (11) of Subsection B of 20.2.50.113 NMAC.

(2) The owner or operator of an existing natural gas-fired spark ignition engine shall complete an inventory of all existing engines subject to this Part by January 1, 2023, and shall prepare a schedule to ensure that each existing engine does not exceed the emission standards in table 1 of Paragraph (2) of Subsection B of 20.2.50.113 NMAC as follows, except as otherwise specified under an Alternative Compliance Plan (ACP) approved pursuant to Paragraph (10) of Subsection B of 20.2.50.113 NMAC or alternative emissions standards approved pursuant to Paragraph (11) of Subsection B of 20.2.50.113 NMAC:

(a) by January 1, 2025, the owner or operator shall ensure at least thirty percent of the company's existing engines meet the emission standards.

(b) by January 1, 2027, the owner or operator shall ensure at least an additional thirty-five percent of the company's existing engines meet the emission standards.

(c) by January 1, 2029, the owner or operator shall ensure that the remaining thirty-five percent of the company's existing engines meet the emission standards.

(d) in lieu of meeting the emission standards for an existing natural gas-fired spark ignition engine, an owner or operator may reduce the annual hours of operation of an engine such that the annual PTE of NOx and VOC emissions are reduced to achieve an equivalent allowable ton per year emission reduction as set forth in table 1 of Paragraph (2) of Subsection B of 20.2.50.113 NMAC, or by at least ninety-five percent per year.

Table 1 - EMISSION STANDARDS FOR EXISTING NATURAL GAS-FIRED SPARK IGNITION ENGINES[71]

Engine Type	Rated bhp	NO_x	CO	NMNEHC (as propane)
2 Stroke Lean Burn	>1,000	3.0 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
4-Stroke Lean Burn	>1,000 bhp and <1,775 bhp	2.0 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
4-Stroke Lean Burn	≥1,775 bhp	0.5 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
Rich Burn	>1,000 bhp	0.5 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr

(3) The owner or operator of a new natural gas-fired spark ignition engine shall ensure the engine does not exceed the emission standards in table 2 of Paragraph (3) of Subsection B of 20.2.50.113 NMAC

[69] Prior versions of this rule had proposed to regulate "installation" or "relocation." Ms. Kuehn testified that upon further reflection, the Department does not believe this is appropriate and that language was removed. Kuehn/Palmer testimony, Tr. 6:1686:1-6; Lisowski Rebuttal Testimony, NMOGA Exhibit 43, 1:26-2:3; 6:33-7:13.

[70] Ms. Kuehn testified that the "parties are largely in agreement with the new emission standards and thresholds that [NMED] established in this rule." Kuehn/Palmer testimony, Tr. 6:1682:10-13. She later testified that NMED had revised the tables based on some of the other state programs, such as Pennsylvania's GP-5 program, having other exemptions or off-ramps that were not recognized originally or assumed different fuel types or sizes from those in New Mexico. Kuehn/Palmer testimony, Tr. 6:1701:23-6:1702:5. Mr. Palmer also stated that the department revised the limits based on achievability and cost effectiveness based on the testimony received. Kuehn/Palmer testimony, Tr. 6:1713:6-11. Mr. Lisowski outlined the technical bases for why additional LEC is not available, Tr. 6:1725:17-6:1727:7. Mr. Lisowski also explained why certain retrofit technologies are not widely applicable, Tr. 6:1727:11-6:1728:1, limitations of NSCR in the field due to drift and fuel gas variation, Tr. 6:1729:13-6:1730:8, and why SCR is generally not effective for oilfield engines, Tr. 6:1730:9-6:1731:9. Mr. Lisowski's comments were echoed by Mr. Sheldon, Tr. 6:1748:7-6:1749:18, and Mr. Dutton, Tr. 6:1753:15-6:1755:3, both experts introduced by the Gas Compressor Association. Ms. Devore and Dr. Orozco argued that the 2.0 g/bhp-hr should be reduced to 1.2 g/bhp-hr, but Mr. Lisowski testified that this was not achievable as a blanket matter and that "there's going to be a large subset of engines in New Mexico that cannot achieve that target and will need to be replaced." Lisowski, Tr. 9:2993:13-18. Mr. Lisowski also explained why, practically, a lower limit was not achievable even with some engines meeting NSPS in response to a question from Chair Suina. Tr. 9:2999:25-9:3001:11

[71] Ms. Kuehn testified that the Table 1 limits are based on the testimony of the parties who filed direct and rebuttal testimony. Kuehn/Palmer testimony, Tr. 6:1685:20-25. Mr. Lisowski testified extensively as to why the limits were appropriate. A succinct summary is found in Lisowksi Rebuttal Testimony, NMOGA Exhibit 43.

upon startup.

Table 2 - EMISSION STANDARDS FOR NEW NATURAL GAS-FIRED SPARK IGNITION ENGINES[72]

Engine Type	Rated bhp	NO_x	CO	NMNEHC (as propane)
Lean-burn	> 500 and < 1875	0.50 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
Lean-burn	≥ 1875	0.30 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
Rich-burn	>500	0.50 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr

(4) The owner or operator of a natural gas-fired spark ignition engine with NO_x emission control technology that uses ammonia or urea as a reagent shall ensure that the exhaust ammonia slip is limited to 10 ppmvd or less, corrected to fifteen percent oxygen.

(5) The owner or operator of a compression ignition engine shall ensure compliance with the following emission standards:

(a) a new portable or stationary compression ignition engine with a maximum design power output equal to or greater than 500 horsepower that is not subject to the emission standards under Subparagraph (b) of Paragraph (5) of Subsection B of 20.2.50.113 NMAC shall limit NO_x emissions to not more than nine g/bhp-hr upon startup.

(b) a stationary compression ignition engine that is subject to and complying with Subpart IIII of 40 CFR Part 60, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, is not subject to the requirements of Subparagraph (a) of Paragraph (5) of Subsection B of 20.2.50.113 NMAC.[73]

(6) The owner or operator of a portable or stationary compression ignition engine with NO_x emission control technology that uses ammonia or urea as a reagent shall ensure that the exhaust ammonia slip is limited to 10 ppmvd or less, corrected to fifteen percent oxygen.

(7) The owner or operator of a stationary natural gas-fired combustion turbine with a maximum design rating equal to or greater than 1,000 bhp shall comply with the applicable emission standards for an existing, new, or reconstructed turbine listed in table 3 of Paragraph (7) of Subsection B of 20.2.50.113 NMAC.

(a) The owner or operator of an existing stationary natural gas-fired combustion turbine shall complete an inventory of all existing turbines subject to Part 50 by July 1, 2023, and shall prepare a schedule to ensure that each subject existing turbine does not exceed the emission standards in table 3 of Paragraph (7) of Subsection B of 20.2.50.113 NMAC as follows, except as otherwise specified under an Alternative Compliance Plan approved pursuant to Paragraph (10) of Subsection B of 20.2.50.113 NMAC or alternative emissions standards approved pursuant to Paragraph (11) of Subsection B of 20.2.50.113 NMAC:

(i) by January 1, 2024, the owner or operator shall ensure at least thirty percent of the company's existing turbines meet the emission standards.

(ii) by January 1, 2026, the owner or operator shall ensure at least an additional thirty-five percent of the company's existing turbines meet the emission standards.

(iii) by January 1, 2028, the owner or operator shall ensure that the remaining thirty-five percent of the company's existing turbines meet the emission standards.

(iv) in lieu of meeting the emission standards for an existing stationary natural gas-fired combustion turbine, an owner or operator may reduce the annual hours of operation of a turbine such that the annual PTE of NOx and VOC emissions are reduced to achieve an equivalent allowable ton per year emission reduction as set forth in table 3 of Paragraph (7) of Subsection B of 20.2.50.113 NMAC, or by at least ninety-five percent per year.

[72] Ms. Kuehn testified that these limits were set based upon Ohio precedent and the compelling testimony of industry stakeholders. Kuehn/Palmer testimony, Tr. 6:1868:9-22. Mr. Lisowski testified extensively as to why the limits were appropriate. A succinct summary is found in Lisowksi Rebuttal Testimony, NMOGA Exhibit 43.
Mr. Brindley, Ms. Nolting and Mr. Trent also testified extensively in support of the final levels on behalf of Kinder Morgan. Tr. 6:1807:4-6:1814:8. Ms. Devore expressed some concern about the removal of "install" and whether this created enforceability issues, but upon further consideration agreed that the removal did not create a gap in the regulations. Tr. 8:2401:9-8:2402:2.
[73] Kuehn/Palmer testimony, Tr. 6:1687:6-17.

Table 3 - EMISSION STANDARDS FOR STATIONARY COMBUSTION TURBINES[74]

For each applicable existing natural gas-fired combustion turbine, the owner or operator shall ensure the turbine does not exceed the following emission standards no later than the schedule set forth in Paragraph (7)(a) of Subsection B of 20.2.50.113 NMAC:			
Turbine Rating (bhp)	NO_x (ppmvd @15% O_2)	CO (ppmvd @ 15% O_2)	NMNEHC (as propane, ppmvd @15% O_2)
≥1,000 and <4,100	150	50	9
≥4,100 and <15,000	50	50	9
≥15,000	50	50 or 93% reduction	5 or 50% reduction
For each applicable new natural gas-fired combustion turbine, the owner or operator shall ensure the turbine does not exceed the following emission standards upon startup:			
Turbine Rating (bhp)	NO_x (ppmvd @15% O_2)	CO (ppmvd @ 15% O_2)	NMNEHC (as propane, ppmvd @15% O_2)
≥1,000 and <4,000	100	25	9
≥4,000 and <15,900	15	10	9
≥15,900	9.0 Uncontrolled or 2.0 with Control	10 Uncontrolled or 1.8 with Control	5

(8) The owner or operator of a stationary natural gas-fired combustion turbine with NO_x emission control technology that uses ammonia or urea as a reagent shall ensure that the exhaust ammonia slip is limited to 10 ppmvd or less, corrected to fifteen percent oxygen.

(9) The owner or operator of an emergency use engine as defined by 40 C.F.R. §§ 60.4211, 60.4243, or 63.6675 is not subject to the emissions standards in this Part but shall be equipped with a non-resettable hour meter to monitor and record any hours of operation.

(10) In lieu of complying with the emission standards for individual engines and turbines established in Subsection B of 20.2.50.113 NMAC, an owner or operator may elect to comply with the emission standards through an Alternative Compliance Plan (ACP) approved by the department. An ACP must include the list of engines or turbines subject to the ACP, and a demonstration that the total allowable emissions for the engines or turbines subject to the ACP will not exceed the total allowable emissions under the emission standards of this Part. Prior to submitting a proposed ACP to the Department, the owner or operator shall comply with the following requirements in the order listed:

(a) The owner or operator shall contract with an independent third-party engineering or consulting firm to conduct a technical and regulatory review of the ACP proposal. The selected firm shall review the proposal to determine if it meets the requirements of this Part, and shall prepare and certify an evaluation of the proposed ACP indicting whether the ACP proposal adheres to the requirements of this Part.

(b) Following the independent third-party review, the owner or operator shall provide the ACP, along with the third-party evaluation and findings, to the department for posting on the department's website. The department shall post the ACP and the third-party review within 15 days of receipt.

(c) Following posting by the department, the owner or operator shall publish a notice in a newspaper of general circulation announcing the ACP proposal, the dates it will be available for review and comment by the public, and information on how and where to submit comments. The dates specified in the public notice must provide for a thirty-day comment period.

(d) Following the close of the thirty-day notice and comment period, the department shall send the comments submitted on the ACP proposal and findings to the owner or operator. The owner or operator shall provide written responses to all comments to the department.

[74] Ms. Kuehn testified that these limits were derived based on research and comments from manufacturers. Kuehn/Palmer testimony, Tr. 6:1689:4-6:1690:3. Ms. Witherspoon, representing Solar Turbines, testified that the Department's September 16, 2021, table, if corrected to 4,100 bhp for existing turbines, was appropriate and achievable. Tr. 10:3374:6-25.

(e) Following receipt of the owner or operator's responses to comments received during the thirty-day comment period, the department shall make a determination whether to approve or deny the ACP proposal within 90 days. The department shall approve an ACP that meets the requirements of this Part, unless the department determines that the total allowable emissions under the ACP exceed the total allowable emissions under the emission standards of 20.2.50.113 NMAC. If approved by the department, the emission reductions and associated emission limits for the affected engines or turbines shall become enforceable terms under this Part.[75]

(11) The owner or operator may submit a request for alternative emission standards for a specific engine or turbine based on technical impracticability or economic infeasibility. The owner or operator is not required to submit an ACP proposal under Paragraph (10) of Subsection B of 20.2.50.113 NMAC prior to submission of a request for alternative emissions standards under this Paragraph (11), provided that the owner or operator satisfies Subparagraph (b) of Paragraph (11) of Subsection B of 20.2.50.113 NMAC, below. To qualify for an alternative emission standard, an owner or operator must comply with the following requirements:

(a) prepare a reasonable demonstration detailing why it is not technically practicable or economically feasible for the individual engine or turbine to achieve the emissions standards in table 1 of Paragraph (2) of Subsection B of 20.2.50.113 NMAC or table 3 of Paragraph (7) of Subsection B of 20.2.50.113 NMAC, as applicable;

(b) prepare a demonstration detailing why emissions from the individual engine or turbine cannot be addressed through an ACP in a technically practicable or economically feasible manner;

(c) prepare a technical analysis for the affected engine or turbine specifying the emission reductions that can be achieved through other means, such as combustion modifications or capacity limitations. The technical analysis shall include an analysis of any previous modifications of the source and a determination whether such modifications meet the definition of a reconstructed source, such that the source should be considered a new source under federal regulations. The analysis shall include a certification that the modifications to the source are not in violation of any state or federal air quality regulation; and

(d) fulfill the requirements of Subparagraphs (a) through (c) of Paragraph (10) of Subsection B of 20.2.50.113 NMAC.

(e) Following the close of the thirty-day notice and comment period, the department shall send the comments submitted on the alternative emission standards and findings to the owner or operator. The owner or operator shall provide written responses to all comments to the department.

(f) Following receipt of the owner or operator's responses to comments received during the thirty-day comment period, the department shall make a determination whether to approve or deny the alternative emission standards within 90 days. If approved by the department, the emission reductions and alternative emission standards for the affected engine or turbine shall become enforceable terms under this Part.

(g) If approved by the department, the emissions reductions and alternative standards for the affected engine or turbine shall become enforceable terms under this Part.[76]

(12) A short-term replacement engine may be substituted for any engine subject to Section 20.2.50.113 NMAC consistent with any applicable air quality permit containing allowances for short term replacement engines, including but not limited to New Source Review and General Construction Permits issued under 20.2.72 NMAC. A short-term engine replacement is not considered a "new" engine for purposes of this Part unless the engine it replaces is a "new" engine within the meaning of this Part. The reinstallation of the existing engine following removal of the short-term replacement engine is not considered a "new" engine under this Part unless the engine was "new" prior to the temporary replacement.

C. Monitoring requirements:[77]

(1) Maintenance and repair for a spark ignition engine, compression ignition engine, and stationary combustion turbine shall meet the manufacturer recommended maintenance schedule as defined in 20.2.50.112 NMAC.

(2) Maintenance conducted consistent with an applicable NSPS or NESHAP requirement shall be deemed to be in compliance with 20.2.50.113.C(1) NMAC.

(3) Catalytic converters (oxidative, selective, and non-selective) and AFR controllers shall be

[75] Ms. Kuehn explained the desirability and steps to ensure accountability and transparency for this compliance provision. Kuehn/Palmer testimony, Tr. 6:1679:11-6:1682:5; 6:1690:23-6:1693:4.

[76] Ms. Kuehn explained the desirability and steps to ensure accountability and transparency for this compliance provision. Kuehn/Palmer testimony, Tr. 6:1679:11-6:1682:5; 6:1690:23-6:1693:4.

[77] Ms. Kuehn testified as to the need and application of the monitoring requirements. Kuehn/Palmer testimony, Tr. 6:1694:1-6:1697:7.

inspected and maintained according to manufacturer specifications as defined in 20.2.50.112 NMAC, and shall include replacement of oxygen sensors as necessary for oxygen-based controllers. During periods of catalytic converter or AFR controller maintenance, the owner or operator shall shut down the engine or turbine until the catalytic converter or AFR controller can be replaced with a functionally equivalent spare to allow the engine or turbine to return to operation.

(4) For equipment operated for 500 hours per year or more, compliance with the emission standards in Subsection B of 20.2.50.113 NMAC shall be demonstrated within 180 days of the effective date applicable to the source as defined by Subsection B(2) and (7) or, if installed more than 180 days after the effective date, within 60 days after achieving the maximum production rate at which the source will be operated, but not later than 180 days after initial startup of such source.[78] Compliance with the applicable emission standards shall be demonstrated by performing an initial emission test for NOx and VOC, as defined in 40 CFR 51.100(s) using U.S. EPA reference methods or ASTM D6348. Periodic monitoring shall be conducted annually to demonstrate compliance with the allowable emission standards and may be demonstrated utilizing a portable analyzer or EPA reference methods. For units with g/hp-hr emission standards, the engine load shall be calculated using the following equations:

$$\text{Load (Hp)} = \frac{\text{Fuel consumption (scf/hr) x Measured fuel heating value (LHV btu/scf)}}{\text{Manufacturer's rated BSFC (btu/bhp-hr) at 100\% load or best efficiency}}$$

$$\text{Load (Hp)} = \frac{\text{Fuel consumption (gal/hr) x Measured fuel heating value (LHV btu/gal)}}{\text{Manufacturer's rated BSFC (btu/bhp-hr) at 100\% load or best efficiency}}$$

Where: LVH = lower heating value, btu/scf, or btu/gal, as appropriate; and
BSFC = brake specific fuel consumption

If the manufacturer's rated BSFC is not available, an operator may use an alternative load calculation methodology based on available data.

(a) emissions testing events shall be conducted within 10 percent of 100 percent peak (or the highest achievable) load. The load and the parameters used to calculate it shall be recorded to document operating conditions at the time of testing and shall be included with the test report.

(b) emissions testing utilizing a portable analyzer shall be conducted in accordance with the requirements of the current version of ASTM D6522. If a portable analyzer has met a previously approved department criterion, the analyzer may be operated in accordance with that criterion until it is replaced.

(c) the default time period for a test run shall be at least 20 minutes.

(d) an emissions test shall consist of three separate runs, with the arithmetic mean of the results from the three runs used to determine compliance with the applicable emission standard.

(e) during emissions tests, pollutant and diluent concentration shall be monitored and recorded. Fuel flow rate shall be monitored and recorded if stack gas flow rate is determined utilizing U.S. EPA reference method 19. This information shall be included with the periodic test report.

(f) stack gas flow rate shall be calculated in accordance with U.S. EPA reference method 19 utilizing fuel flow rate (scf) determined by a dedicated fuel flow meter and fuel heating value (Btu/scf). The owner or operator shall provide a contemporaneous fuel gas analysis (preferably on the day of the test, but no earlier than three months before the test date) and a recent fuel flow meter calibration certificate (within the most recent quarter) with the final test report. Alternatively, stack gas flow rate may be determined by using U.S. EPA reference methods 1 through 4 or through the use of manufacturer provided fuel consumption rates.

(g) upon request by the department, an owner or operator shall submit a notification and protocol for an initial or annual emissions test.

(h) emissions testing shall be conducted at least once per 8760 hours of operation or three calendar years, whichever comes first[79]. Emission testing required by Subparts GG, IIII, JJJJ, or KKKK of 40 CFR 60, or Subpart ZZZZ of 40 CFR 63, may be used to satisfy the emissions testing requirements if it meets the

[78] Timing for emissions testing consistent with testing for units subject to New Source Performance standards under 40 C.F.R. 60.8(a).

[79] Commercial disposal group requested change to 8760 hours or 3 years. NMOGA agrees with this change for non-emergency engines but not for emergency engines, which by definition should have fewer than 300 hours of operation in three years. Emergency engines should be left at 8760 hours.

requirements of 20.2.50.113 NMAC and is completed at least once per calendar year.

(i) The results of emissions testing demonstrating compliance with the emission standard for CO may be used as a surrogate to demonstrate compliance with the emission standard for NMNEHC.

(5) The owner or operator of equipment operated less than 500 hours per year shall monitor the hours of operation using a non-resettable hour meter and shall test the unit at least once per 8760 hours of operation in accordance with the emissions testing requirements in Paragraph (4) of Subsection C of 20.2.50.113 NMAC.

(6) An owner or operator of an emergency use engine as defined by 40 C.F.R. §§ 60.4211, 60.4243, or 63.6675 shall monitor the hours of operation by a non-resettable hour meter.

(7) An owner or operator limiting the annual operating hours of an engine or turbine to meet the requirements of Paragraph (2) or (7) of Subsection B of 20.2.50.113 NMAC shall monitor the hours of operation by a non-resettable hour meter.

(8) Prior to any monitoring, testing, inspection, or maintenance of an engine or turbine, the owner or operator shall date and time stamp the event, and the monitoring data entry shall be made in accordance with the requirements of 20.2.50.112 and 113 NMAC.

D. Recordkeeping requirements:[80]

(1) The owner or operator of a spark ignition engine, compression ignition engine, or stationary combustion turbine shall maintain a record in accordance with 20.2.50.112 NMAC for the engine or turbine. The record shall include:

(a) the make, model, serial number, and unique identification number for the engine or turbine;

(b) location of the source (latitude and longitude);

(c) a copy of the engine, turbine, or control device manufacturer recommended maintenance and repair schedule as defined in 20.2.50.112 NMAC; and

(d) all inspection, maintenance, or repair activity on the engine, turbine, and control device, including:

(i) the date and time stamp(s), including GPS of the location, of an inspection, maintenance, or repair;

(ii) the date a subsequent analysis was performed (if applicable);

(iii) the name of the person(s) conducting the inspection, maintenance or repair;

(iv) a description of the physical condition of the equipment as found during the inspection;

(v) a description of maintenance or repair conducted; and

(vi) the results of the inspection and any required corrective actions.

(2) The owner or operator of a spark ignition engine, compression ignition engine, or stationary combustion turbine shall maintain records of initial and annual emissions testing for the engine or turbine for a period of five years. The records shall include:

(a) make, model, and serial number for the tested engine or turbine;

(b) the date and time stamp(s), including GPS of the location, of any monitoring event, including sampling or measurements;

(c) date analyses were performed;

(d) name of the person(s) and the qualified entity that performed the analyses;

(e) analytical or test methods used;

(f) results of analyses or tests;

(g) calculated emissions of NOx and VOC in lb/hr and tpy; and

(h) operating conditions at the time of sampling or measurement.

(3) The owner or operator of an emergency use engine as defined by 40 C.F.R. §§ 60.4211, 60.4243, or 63.6675 shall record the total annual hours of operation as recorded by the non-resettable hour meter.

(4) The owner or operator limiting the annual operating hours of an engine or turbine to meet the requirements of Paragraph (2) or (7) of Subsection B of 20.2.50.113 NMAC shall record the hours of operation by a non-resettable hour meter. The owner or operator shall calculate and record the annual NOx and VOC emission calculation, based on the engine or turbine's actual hours of operation, to demonstrate that an equivalent allowable

[80] Ms. Kuehn testified as to the need for the various recordkeeping requirements and adjustments made in response to industry and other comments. Tr. 6:1697:8-13.

ton per year emission reduction as set forth in table 1 or table 3 of Paragraph (2) or (7) of Subsection B of 20.2.50.113 NMAC, or the ninety-five percent emission reduction requirement is met.

E. Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.113 NM–C - N, XX/XX/2021]

20.2.50.114 COMPRESSOR SEALS:

A. Applicability:

(1) Centrifugal compressors using wet seals and located at tank batteries, gathering and boosting stations, and natural gas processing plants are subject to the requirements of 20.2.50.114 NMAC. Centrifugal compressors located at well sites and transmission compressor stations are not subject to the requirements of 20.2.50.114 NMAC.

(2) Reciprocating compressors located at tank batteries, gathering and boosting stations, and natural gas processing plants are subject to the requirements of 20.2.50.114 NMAC. Reciprocating compressors located at well sites and transmission compressor stations are not subject to the requirements of 20.2.50.114 NMAC.

B. Emission standards:

(1) The owner or operator of an existing centrifugal compressor with wet seals shall control VOC emissions from a centrifugal compressor wet seal fluid degassing system by at least ninety-five percent within two years of the effective date of this Part. Emissions shall be captured and routed via a closed vent system to a control device, recovery system, fuel cell, or a process stream.[81]

(2) The owner or operator of an existing reciprocating compressor shall, either:

(a) replace the reciprocating compressor rod packing after every 26,000 hours of compressor operation or every 36 months, whichever is reached later. The owner or operator shall begin counting the hours of compressor operation toward the first replacement of the rod packing upon the effective date of this Part; or[82]

(b) beginning no later than two years from the effective date of this Part, collect emissions from the rod packing, and route them via a closed vent system to a control device, recovery system, fuel cell, or a process stream.

(3) The owner or operator of a new centrifugal compressor with wet seals shall control VOC emissions from the centrifugal compressor wet seal fluid degassing system by at least ninety-five percent upon startup. Emissions shall be captured and routed via a closed vent system to a control device, recovery system, fuel cell, or process stream.

(4) The owner or operator of a new reciprocating compressor shall, upon startup, either:

(a) replace the reciprocating compressor rod packing after every 26,000 hours of compressor operation, or every 36 months, whichever is reached later; or

(b) collect emissions from the rod packing and route them via a closed vent system to a control device, a recovery system, fuel cell, or a process stream.

(5) The owner or operator complying with the emission standards in Subsection B of 20.2.50.114 NMAC through use of a control device shall comply with the control device requirements in 20.2.50.115 NMAC.

C. Monitoring requirements:

(1) The owner or operator of a centrifugal compressor complying with Paragraph (1) or (3) of Subsection B of 20.2.50.114 NMAC shall maintain a closed vent system encompassing the wet seal fluid degassing system that complies with the monitoring requirements in 20.2.50.115 NMAC.

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[81] NMED proposed deleting this provision in its January 18, 2022 redline. NMOGA has no objection to its deletion as it eliminates a safety/quality issue. Lisowski Rebuttal Testimony, NMOGA Exhibit 43, 12:11-17.

[82] Kuehn/Palmer testimony, NMED Exhibit 32:60:6-12. VOC emissions from reciprocating compressor rod packing can be minimized by replacing the rod packing on a regular basis before it becomes excessively worn.; Lisowski testimony, Exhibit A3:132-133. Mr. Lisowski testified that operators elect to replace reciprocating compressor rod packing at the specified time or hour interval, which makes the rule irrelevant. Removing the requirement to "collect compressor vents under negative pressure" allows operators to determine the most effective method for reducing venting.; Lisowski rebuttal testimony, Exhibit A3:12:4-17. Mr. Lisowski testified that when negative pressure is used as a control system you have the potential to introduce oxygen which can be a safety issue as well as an issue for meeting gas specs to midstream providers (for upstream producers). *See also* Tr. 6:1859.; Smitherman testimony, NMOGA Exhibit A1:21:1-12. Mr. Smitherman testified that compressor seals are a very small source of ozone precursor emissions. If the section is not eliminated, he supports the option of collecting the small gas volumes, without negative pressures being applied, in order to route them to a control device.

(2) The owner or operator of a reciprocating compressor complying with Subparagraph (a) of Paragraph (2) or Subparagraph (a) of Paragraph (4) of Subsection B of 20.2.50.114 NMAC shall continuously monitor the hours of operation with a non-resettable hour meter and track the number of hours since initial startup or since the previous reciprocating compressor rod packing replacement.[83]

(3) The owner or operator of a reciprocating compressor complying with Subparagraph (b) of Paragraph (2) or Subparagraph (b) of Paragraph (4) of Subsection B of 20.2.50.114 NMAC shall monitor the rod packing emissions collection system semiannually to ensure that it operates as designed and routes emissions through a closed vent system to a control device, recovery system, fuel cell, or process stream.

(4) The owner or operator of a centrifugal or reciprocating compressor complying with the requirements in Subsection B of 20.2.50.114 NMAC through use of a closed vent system or control device shall comply with the monitoring requirements in 20.2.50.115 NMAC.

(5) The owner or operator of a centrifugal or reciprocating compressor shall comply with the monitoring requirements in 20.2.50.112 NMAC.

D. Recordkeeping requirements:

(1) The owner or operator of a centrifugal compressor using a wet seal fluid degassing system shall maintain a record of the following:

(a) the location (latitude and longitude) of the centrifugal compressor;

(b) the date of construction, reconstruction, or modification of the centrifugal compressor;

(c) the monitoring required in Subsection C of 20.2.50.114 NMAC, including the time and date of the monitoring, the person(s) conducting the monitoring, a description of any problem observed during the monitoring, and a description of any corrective action taken; and

(d) the type, make, model, and unique identification number or equivalent identifier of a control device used to comply with the control requirements in Subsection B of 20.2.50.114 NMAC.

(2) The owner or operator of a reciprocating compressor shall maintain a record of the following:

(a) the location (latitude and longitude) of the reciprocating compressor;

(b) the date of construction, reconstruction, ~~or modification~~ [84] of the reciprocating compressor; and

(c) the monitoring required in Subsection C of 20.2.50.114 NMAC, including:

(i) the number of hours of operation since the effective date, initial startup after the effective date, or the last rod packing replacement, as applicable;

(ii) data showing the effectiveness of the rod packing emissions collection system, as applicable; and

(iii) the time and date of the inspection, the person(s) conducting the inspection, a description of any problems observed during the inspection, and a description of corrective actions taken.

(3) The owner or operator of a centrifugal or reciprocating compressor complying with the requirements in Subsection B of 20.2.50.114 NMAC through use of a control device or closed vent system shall comply with the recordkeeping requirements in 20.2.50.115 NMAC.

(4) The owner or operator of a centrifugal or reciprocating compressor shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements: The owner or operator of a centrifugal or reciprocating compressor shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.114 NM–C - N, XX/XX/2021]

20.2.50.115 CONTROL DEVICES AND CLOSED VENT SYSTEMS:

A. Applicability: These requirements apply to control devices and closed vent systems as defined in 20.2.50.7 NMAC and used to comply with the emission standards and emission reduction requirements in this Part.

B. General requirements:

(1) Control devices used to demonstrate compliance with this Part shall be installed,

[83] Lisowski rebuttal testimony NMOGA Exhibit 43:12:18-21. Mr. Lisowski testified that it is not an issue to install non-resettable meters on compressors and is already used by most operators.

[84] "Modification" as a concept is not being used in this rule and has no defined meaning. Its inclusion was inadvertently overlooked here and should be deleted.

operated, and maintained consistent with manufacturer specifications, and good engineering and maintenance practices.

(2) Control devices shall be adequately designed and sized to achieve the control efficiency rates required by this Part and to handle the reasonably expected range of inlet VOC or NOx concentrations or volumes.

(3) The owner or operator shall inspect control devices visually or consistent with applicable federally approved inspection methods at least monthly to identify defects, leaks, and releases, and to ensure proper operation. Prior to an inspection or monitoring event, the owner or operator shall date and time stamp the event, and the required monitoring data entry shall be made in accordance with this Part.

(4) The owner or operator shall ensure that a control device used to comply with emission standards in this Part operates as a closed vent system that captures and routes VOC emissions to the control device, in order to minimize venting of unburnt gas to the atmosphere.

(5) The owner or operator of a permanent closed vent system for a centrifugal compressor wet seal fluid degassing system, reciprocating compressor, natural gas driven pneumatic pump, or storage vessel using a control device or routing emissions to a process shall:

(a) ensure the control device or process is of sufficient design and capacity to accommodate the expected range of emissions from the affected sources;

(b) conduct an assessment to confirm that the closed vent system is of sufficient design and capacity to ensure that emissions from the affected equipment are routed to the control device or process; and

(c) have the assessment certified by a qualified professional engineer or an in-house engineer with expertise regarding the design and operation of closed vent system(s) in accordance with Paragraphs (c)(i) and (ii) of this Section.

(i) The assessment of the closed vent system shall be prepared under the direction or supervision of a qualified professional engineer or an in-house engineer who signs the certification in Paragraph (c)(ii) of this Section.

(ii) the owner or operator shall provide the following certification, signed and dated by a qualified professional engineer or an in-house engineer: "I certify that the closed vent system assessment was prepared under my direction or supervision. I further certify that the closed vent system assessment was conducted, and this report was prepared, pursuant to the requirements of this Part. Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete."

(d) an owner or operator of an existing closed vent system shall comply with the requirements of Paragraph (5) of Subsection B of 20.2.50.115 NMAC within three years of the effective date of this Part and within 90 days of startup for a new closed vent system.

(6) The owner or operator shall keep manufacturer specifications for all control devices on file. The information shall include the unique identification number, type of unit, manufacturer name, make, model, capacity, and destruction or reduction efficiency data.

C. Requirements for open flares:

(1) Emission standards:

(a) the flare shall be properly sized and designed to ensure proper combustion efficiency to combust the gas sent to the flare, and combustion shall be maintained for the duration of time that sufficient[85] gas is sent to the flare. The owner or operator shall not send gas to the flare in excess of the manufacturer maximum rated capacity. Failure to combust during the auto-igniter reignition cycle is not a violation of this requirement.[86]

(b) the owner or operator shall equip each new and existing flare (except those flares required to meet the requirements of Paragraph (c) of this Subsection) with a continuous pilot flame, an operational auto-igniter, or require manual ignition, and shall comply with the following no later than one year after the effective date of this part, unless otherwise specified:

(i) a flare with a continuous pilot flame or an auto-igniter shall be equipped with a system to ensure the flare is operated with a flame present at all times when gas is being sent to the

[85] There is not sufficient gas at the end of an event to sustain combustion. That should not be a violation.

[86] By definition, there will be a period between the "sparks" generated by the autoigniter and some gas could be emitted in those periods. This language clarifies that this period is not a violation.

flare. Failure of the flare to be lit prior to the auto-igniter reignition cycle is not a violation of this requirement.[87]

(ii) the owner or operator of a flare with manual ignition shall inspect and ensure a flame is present upon initiating a flaring event.

(iii) a new flare controlling a continuous waste[88] gas stream shall be equipped with a continuous pilot flame upon startup.

(iv) an existing flare controlling a continuous waste[89] gas stream shall be equipped with a continuous pilot.

(c) an existing flare located at a site with an annual average daily production of equal to or less than 10 barrels of oil per day or an average daily production of 60,000 standard cubic feet of natural gas shall be equipped with an auto-ignitor, continuous pilot, or technology (e.g. alarm) that alerts the owner or operator of a flare malfunction, if replaced or reconstructed after the effective date of this Part.

(d) the owner or operator shall operate a flare with no visible emissions, except for periods not to exceed a total of 30 seconds during any 15 consecutive minutes. The flare shall be designed so that an observer can, by means of visual observation from the outside of the flare or by other means such as a continuous monitoring device, determine whether it is operating properly. The observation may be terminated if visible emissions are observed and recorded and action is taken to address the visible emissions.

(e) the owner or operator shall repair the flare within three business days of any thermocouple or other flame detection device alarm activation.

(2) Monitoring requirements:

(a) the owner or operator of a flare with a continuous pilot or auto-igniter shall continuously monitor the presence of a pilot flame, or presence of flame during flaring if using an auto-igniter, using a thermocouple equipped with a continuous recorder and alarm to detect the presence of a flame. An alternative equivalent technology alerting the owner or operator of failure of ignition of the gas stream may be used in lieu of a continuous recorder and alarm, if approved by the department;

(b) the owner or operator of a manually ignited flare shall monitor the presence of a flame using continuous visual observation during a flaring event;

(c) the owner or operator shall, at least quarterly, and upon observing visible emissions, perform a U.S. EPA method 22 observation while the flare pilot or auto-igniter flame is present to certify compliance with visible emission requirements. The observation period shall be a minimum of 15 consecutive minutes. The observation may be terminated if visible emissions are observed and recorded and action is taken to address the visible emissions;

(d) prior to an inspection or monitoring event, the owner or operator shall date and time stamp the event, and the required monitoring data entry shall be made in accordance with this Part; and

(e) the owner or operator shall monitor the technology that alerts the owner or operator of a flare malfunction and any instances of technology or alarm activation.

(3) Recordkeeping requirements: The owner or operator of an open flare shall keep a record of the following:

(a) any instance of thermocouple or other approved technology or flame detection device alarm activation, including the date and cause of alarm activation, action taken to bring the flare into a normal operating condition, the name of the person(s) conducting the inspection, and any maintenance activity performed;

(b) the results of the U.S. EPA method 22 observations;

(c) the monitoring of the presence of a flame on a manual flare during a flaring event as required under Subparagraph (b) of Paragraph (2) of Subsection C of 20.2.50.115 NMAC;

(d) the results of the most recent gas analysis for the gas being flared, including VOC content and heating value, if any[90]; and

(e) the data and time stamp(s), including GPS of the location, of any monitoring event.

~~**(4)** Reporting requirements: The owner or operator shall comply with the reporting~~

[87] By definition, there will be a period between the "sparks" generated by the autoigniter and some gas could be emitted in those periods. This language clarifies that this period is not a violation.
[88] Clarification added so that it is clear the pilot fuel is not a continuous gas stream implicating this requirement.
[89] Clarification added so that it is clear the pilot fuel is not a continuous gas stream implicating this requirement.
[90] At midstream facilities, there may not be a gas analysis because many facilities are combined prior to flaring.

~~requirements in 20.2.50.112 NMAC.~~[91]

D. Requirements for enclosed combustion devices (ECD) and thermal oxidizers (TO):

(1) Emission standards:

(a) the ECD/TO shall be properly sized and designed to ensure proper combustion efficiency to combust the gas sent to the ECD/TO. The owner or operator shall not send gas to the ECD/TO in excess of the manufacturer maximum rated capacity.

(b) the owner or operator shall equip each new ECD/TO with a continuous pilot flame or an auto-igniter upon startup. Existing ECD/TO shall be equipped with a continuous pilot flame or an auto-igniter no later than two years after the effective date of this Part.

(c) ECD/TO with a continuous pilot flame or an auto-igniter shall be equipped with a system to ensure that the ECD/TO is operated with a flame present at all times when gas is sent to the ECD/TO. Combustion shall be maintained for the duration of time that gas is sent to the ECD/TO. New ECD/TOs shall comply with this requirement upon startup, and existing ECD/TOs shall comply with this requirement within 2 years of the effective date of this Part.

(d) the owner or operator shall operate an ECD/TO with no visible emissions, except for periods not to exceed a total of 30 seconds during any 15 consecutive minutes. The ECD/TO shall be designed so that an observer can, by means of visual observation from the outside of the ECD/TO or by other means such as a continuous monitoring device, determine whether it is operating properly. The observation may be terminated if visible emissions are observed and recorded and action is taken to address the visible emissions.

(2) Monitoring requirements:

(a) the owner or operator of an ECD/TO with a continuous pilot or an auto-igniter shall continuously monitor the presence of a pilot flame, or of a flame during combustion if using an auto-igniter, using a thermocouple equipped with a continuous recorder and alarm to detect the presence of a flame. An alternative equivalent technology alerting the owner or operator of failure of ignition of the gas stream may be used in lieu of a continuous recorder and alarm, if approved by the department.

(b) the owner or operator shall, at least quarterly, and upon observing visible emissions, perform a U.S. EPA method 22 observation while the ECD/TO pilot flame or auto-igniter flame is present to certify compliance with the visible emission requirements. The period of observation shall be a minimum of 15 consecutive minutes. The observation may be terminated if visible emissions are observed and recorded and action is taken to address the visible emissions.

(c) prior to an inspection or monitoring event, the owner or operator shall date and time stamp the event, and the required monitoring data entry shall be made in accordance with the monitoring requirements of this Part.

(3) Recordkeeping requirements: The owner or operator of an ECD/TO shall keep records of the following:

(a) any instance of a thermocouple or other approved technology or flame detection device alarm activation, including the date and cause of the activation, any action taken to bring the ECD/TO into normal operating condition, the name of the person(s) conducting the inspection, and any maintenance activities performed;

(b) the results of the U.S. EPA method 22 observations;

(c) the data and time stamp(s), including GPS of the location, of any monitoring event; and

(d) the results of the most recent gas analysis for the gas being combusted, including VOC content and heating value, if any[92].

~~**(4)** Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.~~[93]

E. Requirements for vapor recover units (VRU):

(1) Emission standards:

(a) the owner or operator shall operate the VRU as a closed vent system that captures and routes ~~all~~ [94]VOC emissions directly back to the process or to a sales pipeline and does not vent to the

[91] This language appears in Subsection G.
[92] Midstream facilities receive gas from multiple facilities and may not have a traditional gas analysis.
[93] This language appears in Subsection G.
[94] It is impossible to prevent all VOC emissions such as during maintenance or VOCs that cannot be captured. Meyer rebuttal testimony, NMOGA Exhibit 42:2:18-27.

atmosphere.

(b) Except during a facility-wide upset,[95] the owner or operator shall control VOC emissions during startup, shutdown, maintenance, or other VRU downtime with a backup control device (e.g. flare, ECD, TO) or redundant VRU during the period of VRU downtime, unless otherwise approved in an air permit issued prior to the effective date of this Part.[96] Alternatively, the owner or operator may shut down and isolate the source being controlled by the VRU. For sites that already have a VRU installed as of the effective date of this Part, the owner or operator shall install backup control devices or redundant VRUs within three years of the effective date of this Part.

(2) Monitoring Requirements:

(a) the owner or operator shall comply with the standards for equipment leaks in 20.2.50.116 NMAC, or alternatively, shall implement a program that meets the requirements of Subpart OOOOa of 40 CFR 60.

(b) prior to a VRU inspection or monitoring event, the owner or operator shall date and time stamp the event, and the required monitoring data entry shall be made in accordance with the requirements of this Part.

(3) Recordkeeping requirements: For a VRU inspection or monitoring event, the owner or operator shall record the result of the event, including the name of the person(s) conducting the inspection, any maintenance or repair activities required, and the date and time stamp(s), including GPS of the location, of any monitoring event. The owner or operator shall record the type of redundant control device used during VRU downtime, or keep records of the source shut down and isolated and the time period during which it was shut down, or records of compliance with an air permit issued prior to the effective date of this Part.

~~**(4)** Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.~~[97]

F. Recordkeeping requirements: The owner or operator of a control device or closed vent system shall maintain a record of the following:

(1) the certification of the closed vent system assessment, where applicable, and as required by this Part; and

(2) the information required in Paragraph (6) of Subsection B of 20.2.50.115 NMAC.

G. Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.115 NM–C - N, XX/XX/2021]

20.2.50.116 EQUIPMENT LEAKS AND FUGITIVE EMISSIONS:

A. Applicability: Well sites, tank batteries, gathering and boosting stations, natural gas processing plants, transmission compressor stations, and associated piping and components are subject to the requirements of 20.2.50.116 NMAC. Components in water or air service are not subject to the requirements of 20.2.50.116 NMAC. The requirements of this Part may be considered in the facility-wide PTE and in determining the monitoring frequency requirements of this Section.

B. Emission standards: The owner or operator of oil and gas production and processing equipment located at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, or transmission compressor stations shall demonstrate compliance with this Part by performing the monitoring, recordkeeping, and reporting requirements specified in 20.2.50.116 NMAC. Tank batteries supporting multiple facilities are subject to the requirements for the most stringently regulated facility of which they are a part.

C. Default Monitoring requirements: Owners and operators shall comply with the following monitoring requirements:

(1) The owner or operator of a facility with an annual average daily production or average daily throughput of greater than 10 barrels of oil per day or an average daily production of greater than 60,000 standard cubic feet per day of natural gas shall, at least weekly, conduct an external audio, visual, and olfactory (AVO) inspections of thief hatches, closed vent systems, pumps, compressors, pressure relief devices, open-ended valves or lines, valves, flanges, connectors, piping, and associated equipment to identify defects and leaking

[95] If there is a facility-wide upset, it would cause all VRUs (and likely other control devices) to go down. In most cases, exhaust gases would be sent to a flare, if one is present, in such situations.
Meyer rebuttal testimony, NMOGA Exhibit 42:2:25-27.

[96] NMOGA does not believe redundant control requirements for VRUs are appropriate. See NMOGA brief.

[97] This language appears in Subsection G.

components as follows:

(a) conduct an external visual inspection for defects, which may include cracks, holes, or gaps in piping or covers; loose connections; liquid leaks; broken or missing caps; broken, cracked or otherwise damaged seals or gaskets; broken or missing hatches; or broken or open access covers or other closure or bypass devices;

(b) conduct an audio inspection for pressure leaks and liquid leaks;

(c) conduct an olfactory inspection for unusual or strong odors; and

(d) any positive detection during the AVO inspection shall be repaired in accordance with Subsection E if not repaired at the time of discovery.

(2) The owner or operator of a facility with an annual average daily production or average daily throughput of equal to or less than 10 barrels of oil per day or an average daily production of equal to or less than 60,000 standard cubic feet per day of natural gas shall, at least monthly, conduct an external audio, visual, and olfactory (AVO) inspection of thief hatches, closed vent systems, pumps, compressors, pressure relief devices, open-ended valves or lines, valves, flanges, connectors, piping, and associated equipment to identify defects and leaking components as specified in Subparagraphs (a) through (d) of Paragraph (1) of Subsection (C) of 20.2.50.116 NMAC.[98]

(3) The owner or operator of the following facilities shall conduct an inspection using U.S. EPA method 21 or optical gas imaging (OGI) of thief hatches, closed vent systems, pumps, compressors, pressure relief devices, open-ended valves or lines, valves, flanges, connectors, piping, and associated equipment to identify leaking components at a frequency determined according to the following schedules, and upon request by the department for good cause shown:

(a) for existing well sites, inactive well sites, ~~or~~ standalone[99] tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations,[100] the owner or operator shall comply with these requirements within two years of the effective date of this Part.

(b) for well sites and standalone tank batteries:[101]

(ii) annually at facilities with a PTE less than ~~two~~ ten tpy VOC;

(iii) semi-annually at facilities with a PTE equal to or greater than ~~two~~ten tpy and less than twenty-five tpy VOC; and

(iv) quarterly at facilities with a PTE equal to or greater than twenty-five tpy VOC.

(c) for gathering and boosting stations and natural gas processing plants:

(i) ~~quarterly~~semiannually at facilities with a PTE less than 25 tpy VOC; and

(ii) ~~monthly~~quarterly at facilities with a PTE equal to or greater than 25 tpy VOC.

(d) for transmission compressor stations, quarterly or in compliance with the federal equipment leak and fugitive emissions monitoring requirements of New Source Performance Standards, 40 C.F.R. Part 60, as may be revised, so long as the federal equipment leak and fugitive emissions monitoring requirements are at least as stringent as the New Source Performance Standards OOOOa, 40 CFR Part 60, in existence as of the effective date of this Part.

(e) quarterly for well sites within 1,000 feet of an occupied area:

~~**(i)** quarterly at facilities with a PTE less than 5 tpy VOC; and~~

~~**(ii)** monthly at facilities with a PTE equal to or greater than 5 tpy VOC.~~

(f) for existing wellhead only facilities, annual inspections shall be completed on the following schedule: 30% by January 1, 2024; 65% by January 1, 2025; and 100% by January 1, 2026.

(g) ~~for inactive well sites:~~

~~**(i)** for well sites that are inactive on or before the effective date of this Part, annually beginning within 6 months of the effective date of this Part;~~

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[98] If the EIB determines that proximity LDAR is within its statutory authority, then NMOGA's weekly AVO language could be inserted here: "except that an owner or operator of a well site within 1,000 feet (as measured from the center of the well site to the applicable structure or area of public assembly) of an occupied area shall conduct the AVO inspection at least weekly."

[99] Inserted to prevent conflicts in effective dates between facility types for tank batteries associated with another facility type.

[100] There needs to be an implementation date for these other facilities.

[101] See testimony of John Smitherman, NMOGA Exhibit A1, p. 23:16-24:40; NMOGA Exhibit 58; and Tr. 8:2668 and following.

~~(ii)~~ for well sites that become inactive after the effective date of this Part, annually beginning 30 days after the site becomes an inactive well site.

(4) Inspections using U.S. EPA method 21 shall meet the following requirements:

(a) the instrument shall be calibrated before each day of use by the procedures specified in U.S. EPA method 21 and the instrument manufacturer; and

(b) a leak is detected if the instrument records a measurement of 500 ppm or greater of hydrocarbons, and the measurement is not associated with normal equipment operation, such as pneumatic device actuation and crank case ventilation.

(5) Inspections using OGI shall meet the following requirements:

(a) the instrument shall comply with the specifications, daily instrument checks, and leak survey requirements set forth in Subparagraphs (1) through (3) of Paragraph (i) of 40 CFR 60.18; and

(b) a leak is detected if the emission images recorded by the OGI instrument are not associated with normal equipment operation, such as pneumatic device actuation or crank case ventilation.

(6) Components that are difficult, unsafe, or inaccessible to monitor, as determined by the following conditions, are not required to be inspected until it becomes feasible to do so:

(a) difficult to monitor components are those that require elevating the monitoring personnel more than two meters above a supported surface;

(b) unsafe to monitor components are those that cannot be monitored without exposing monitoring personnel to an immediate danger as a consequence of completing the monitoring; and

(c) inaccessible to monitor components are those that are buried, insulated, or obstructed by equipment or piping that prevents access to the components by monitoring personnel.

(7) Owners and operators of well sites subject to the requirements in Subparagraph (e) of Paragraph (3) of Subsection C of Section 20.2.50.116 NMAC must conduct an evaluation to determine applicability ~~within 30 days of constructing a new well site, and within 90 days of the effective date of this Part for existing well sites~~prior to the applicable compliance date specified in Subparagraph (a) of Paragraph (3) of Subsection C of Section 20.2.50.116 NMAC. An evaluation is not required if the frequency requirements in subparagraph (e) are being met.[102]

(8) An owner or operator conducting an evaluation pursuant to Paragraph (7) of Subsection C of Section 20.2.50.116 NMAC shall measure the distance from the latitude and longitude of the center of each ~~well at a~~ [103]well site to the following points for each type of occupied area:

(a) the property line for indoor or outdoor spaces associated with a school that students use commonly as part of their curriculum or extracurricular activities and outdoor venues or recreation areas;

(b) the property line for outdoor venues or recreation areas, such as a playground, permanent sports field, amphitheater, or other similar place of outdoor public assembly;

(c) the location of a building or structure being[104] used as a place of residency by a person, a family, or families; and

(d) the location of a commercial facility with five-thousand (5,000) or more spare feet of building floor area that is operating and normally occupied during working hours.

(9) Injection well sites and temporarily abandoned well sites are not subject to the leak survey requirements of Paragraphs (3) through (6) of Subsection C of 20.2.50.116 NMAC.

(10) Prior to any monitoring event, the owner or operator shall date and time stamp the monitoring event.

D. Alternative equipment leak monitoring plans: As an equivalent means of compliance with Subsection C of 20.2.50.116 NMAC, an owner or operator may comply with the equipment leak requirements through an alternative monitoring plan as follows:

(1) An owner or operator may comply with an individual alternative monitoring plan, subject to the following requirements:

(a) the proposed alternative monitoring plan shall be submitted to and approved by

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[102] An evaluation of occupied areas should not be required if the frequency under the proposed rule is being used in any event.

[103] Change made to make it clear how the circumference is determined; as stated, it could require multiple measurements around an irregular shape, greatly increasing cost and uncertainty while not creating more protection.

[104] "Used" can mean use in the past. The proposed change makes it clear that the structure is "being" used as an occupied structure.

the department prior to conducting monitoring under that plan.

(b) the department may terminate an approved alternative monitoring plan if the department finds that the owner or operator failed to comply with a provision of the plan and failed to correct and disclose the violation to the department within 15 calendar days of identifying the violation.

(c) upon department denial or termination of an approved alternative monitoring plan, the owner or operator shall comply with the default monitoring requirements of Subsection C of 20.2.50.116 NMAC within 15 days.

(2) An owner or operator may comply with a pre-approved monitoring plan maintained by the department, subject to the following requirements:

(a) the owner or operator shall notify the department of the intent to conduct monitoring under a pre-approved monitoring plan, and identify which pre-approved plan will be used, at least 15 days prior to conducting the first monitoring under that plan.

(b) the department may terminate the use of a pre-approved monitoring plan by the owner or operator if the department finds that the owner or operator failed to comply with a provision of the plan and failed to correct and disclose the violation to the department within 15 calendar days of identifying the violation.

(c) upon department denial or termination of an approved alternative monitoring plan, the owner or operator shall comply with the default monitoring requirements of Subsection C of 20.2.50.116 NMAC within 15 days.

E. Repair requirements: For a leak detected pursuant to monitoring conducted under 20.2.50.116 NMAC:

(1) the owner or operator shall place a visible tag on the leaking component not otherwise repaired at the time of discovery until the component has been repaired;

(2) leaks shall be repaired as soon as practicable but no later than 30 days of discovery;

(3) the equipment must be re-monitored no later than 15 days after the repair of the leak to demonstrate that it has been repaired; and

(4) if the leak cannot be repaired within 30 days of discovery without a process unit shutdown, the leak may be designated "Repair delayed," the date of the scheduled unit shutdown must be indicated, and the leak must be repaired before the end of the ~~next~~ scheduled process unit shutdown or within 2 years, whichever is earliest.[105]

(5) if the leak cannot be repaired within 30 days of discovery due to shortage of parts, the leak may be designated "Repair delayed," and must be repaired within 15 days of resolution of such shortage.

F. Recordkeeping requirements:

(1) The owner or operator shall keep a record of the following for all AVO, RM 21, OGI, or alternative equipment leak monitoring inspections conducted as required under 20.2.50.116 NMAC, and shall provide the record to the department upon request:

(a) facility location (latitude and longitude);

(b) time and date stamp, including GPS of the location, of any monitoring;

(c) monitoring method (e.g. AVO, RM 21, OGI, approved alternative method);

(d) name of the person(s) performing the inspection;

(e) a description of any leak requiring repair or a note that no leak was found; and

(f) whether a visible tag was placed on the leak or not;

(2) The owner or operator shall keep the following record for any leak that is detected:

(a) the date the leak is detected;

(b) the date of attempt to repair;

(c) for a leak with a designation of "repair delayed" the following shall be recorded:

(i) reason for delay if a leak is not repaired within the required number of days after discovery. If a delay is due to a parts shortage, a record documenting the attempt to order the parts and the unavailability due to a shortage is required;

(ii) the date of next scheduled process unit shutdown by which the repair will be completed; and

(ii) ~~signature~~name[106] of the person(s) who determined that the repair could

[105] This change is to clarify and make the procedure more definite by identifying the scheduled date of the process unit shutdown where the change will occur. Additional records are required. NMED has indicated conceptual agreement with this change.

[106] Signature implies a wet signature, which is difficult to maintain in electronic databases.

not be implemented without a process unit shutdown.

(d) date of successful leak repair;

(e) date the leak was monitored after repair and the results of the monitoring; and

(f) a description of the component that is designated as difficult, unsafe, or inaccessible to monitor, an explanation stating why the component was so designated, and the schedule for repairing and monitoring the component.

(3) For a leak detected using OGI, the owner or operator shall keep records of the specifications, the daily instrument check, and the leak survey requirements specified at 40 CFR 60.18(i)(1)-(3).

(4) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

G. Reporting requirements:

(1) The owner or operator shall certify the use of an alternative equipment leak monitoring plan under Subsection D of 20.2.50.116 NMAC to the department annually, if used.

(2) The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.116 NMAC - N, XX/XX/2021]

20.2.50.117 NATURAL GAS WELL LIQUID UNLOADING:[107]

A. Applicability: Liquid unloading operations resulting in the venting of natural gas at natural gas wells are subject to the requirements of 20.2.50.117 NMAC. Liquid unloading operations that do not result in the venting of any natural gas are not subject to this Part. Owners and operators of a natural gas well subject to this Part must comply with the standards set forth in Paragraph (~~3~~1[108]) of Subsection B of 20.2.50.117 NMAC within two years of the effective date of this Part.[109]

B. Emission standards:[110]

(1) The owner or operator of a natural gas well shall use at least one of the following best management practices during the life of the well to avoid the need for venting of natural gas associated with liquid unloading:

(a) use of a plunger lift;

(b) use of artificial lift;

(c) use of a control device;

(d) use of an automated control system; or

(e) other control if approved by the department

(2) The owner or operator of a natural gas well shall use the following best management practices during venting associated with liquid unloading to minimize emissions, consistent with well site conditions and good engineering practices:

(a) reduce wellhead pressure before blowdown or venting to atmosphere;

(b) monitor manual venting associated with liquid unloading in close proximity to the well or via remote telemetry; and

(c) close vents to the atmosphere and return the well to normal production operation as soon as practicable.[111]

C. Monitoring requirements:

(1) The owner or operator shall monitor the following parameters during venting associated with liquid unloading:

(a) wellhead pressure;

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[107] Kuehn/Palmer testimony, NMED Exhibit 32:95:1-26, 96:1-6. The proposed operational requirements and best management practices for limiting VOC emissions during natural gas well liquids unloading events are based on requirements in Colorado Reg. 7, Pennsylvania GP-5 and GP-5A, and the Wyoming Permitting Guidance.

[108] The provisions of former paragraph (3) moved to paragraph (1). This reflects that move.

[109] NMOGA Exhibit A1, Smitherman testimony, NMOGA Exhibit A1:25:1-46. Mr. Smitherman testified that the rule should be modified to recognize that only manual liquid unloading events that result in venting of gas to the atmosphere are covered, since there is no benefit to emissions reductions to apply to activities that do not cause emissions.

[110] Davis testimony, IPANM Exhibit 2:7-12. Mr. Davis testified in support of the best management practices to reduce emissions associated with manual liquids unloading, but his testimony also opposed the equipment monitoring tracking throughout the proposed regulation.

[111] Smitherman testimony, NMOGA Exhibit A1:25:29-36. Mr. Smitherman testified that closing the vent valve as soon as practical after an unloading event will help minimize venting volumes.

(b) flow rate of the vented natural gas (to the extent feasible); and

(c) duration of venting to the storage vessel, tank battery, or atmosphere.

(2) The owner or operator shall calculate the volume and mass of VOC emitted during a venting event associated with a liquid unloading event.

(3) The owner or operator shall comply with the monitoring requirements of 20.2.50.112 NMAC.

D. Recordkeeping requirements:

(1) The owner or operator shall keep the following records for liquid unloading:

(a) unique identification number and location (latitude and longitude) of the well;

(b) date of the unloading event;

(c) wellhead pressure;

(d) flow rate of the vented natural gas (to the extent feasible. If not feasible, the owner or operator shall use the maximum potential flow rate in the emission calculation);

(e) duration of venting to the storage vessel, tank battery, or atmosphere;

(f) a description of the management practice used to minimize venting of VOC emissions before and during the liquid unloading;

(g) the type of control device or control technique used to control VOC emissions during venting associated with the liquid unloading event; and

(h) a calculation of the VOC emissions vented during a liquid unloading event based on the duration, calculated volume, and composition of the produced gas.

(2) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.117 NMAC - N, XX/XX/2021]

20.2.50.118 GLYCOL DEHYDRATORS:

A. Applicability: Glycol dehydrators with a PTE equal to or greater than two tpy of VOC and located at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations are subject to the requirements of 20.2.50.118 NMAC.~~112~~

B. Emission standards:

(1) Existing glycol dehydrators with a PTE equal to or greater than two tpy of VOC shall achieve a minimum combined capture and control efficiency of ninety-five percent of VOC emissions from the still vent and flash tank (if present) no later than two years after the effective date of this Part. If a combustion control device is used, the combustion control device shall have a minimum design combustion efficiency of ninety-eight percent.[113]

(2) New glycol dehydrators with a PTE equal to or greater than two tpy of VOC shall achieve a minimum combined capture and control efficiency of ninety-five percent of VOC emissions from the still vent and flash tank (if present) upon startup. If a combustion control device is used, the combustion control device shall have a minimum design combustion efficiency of ninety-eight percent.

(3) The owner or operator of a glycol dehydrator shall comply with the following requirements:

(a) still vent and flash tank emissions shall be routed at all times to the reboiler firebox, condenser, combustion control device, fuel cell, to a process point that either recycles or recompresses the emissions or uses the emissions as fuel, or to a VRU that reinjects the VOC emissions back into the process stream or natural gas pipeline;

(b) if a VRU is used, it shall consist of a closed loop system of seals, ducts, and a compressor that reinjects the vapor into the process or the natural gas pipeline. The VRU shall be operational at least ninety-five percent of the time the ~~facility~~ controlled equipment is in operation, resulting in a minimum combined capture and control efficiency of ninety-five percent, which shall supersede any inconsistent requirements in

[113] Textor rebuttal testimony, NMOGA Exhibit 46: Textor rebuttal testimony, NMOGA Exhibit 46: 13:39-44, 14:1-14. Ms. Textor testified that not all glycol dehydrators have a flash tank, which could make the compliance requirement unclear. Including "where present" addresses this concern.

20.2.50.115 NMAC.[114] The VRU shall be installed, operated, and maintained according to the manufacturer's specifications; and[115]

(c) still vent and flash tank emissions shall not be vented directly to the atmosphere during normal operation.[116]

(4) an owner or operator complying with the requirements in Subsection B of 20.2.50.118 NMAC through use of a control device shall comply with the requirements in 20.2.50.115 NMAC.

(5) The requirements of Subsection B of 20.2.50.118 NMAC cease to apply when the actual annual VOC emissions from a new or existing glycol dehydrator are less than two tpy VOC.

C. Monitoring requirements:

(1) The owner or operator of a glycol dehydrator shall conduct an annual extended gas analysis on the dehydrator inlet gas and calculate the uncontrolled and controlled VOC emissions in tpy.

(2) The owner or operator of a glycol dehydrator shall inspect the glycol dehydrator, including the reboiler and regenerator, and the control device or process the emissions are being routed, semi-annually to ensure it is operating as initially designed and in accordance with the manufacturer recommended operation and maintenance schedule.

(3) Prior to any monitoring event, the owner or operator shall date and time stamp the event, and the monitoring data entry shall be made in accordance with the requirements of this Part.

(4) An owner or operator complying with the requirements in Subsection B of 20.2.50.118 NMAC through the use of a control device shall comply with the monitoring requirements in 20.2.50.115 NMAC.

(5) Owners and operators shall comply with the monitoring requirements in 20.2.50.112 NMAC.

D. Recordkeeping requirements:

(1) The owner or operator of a glycol dehydrator shall maintain a record of the following:

(a) unique identification number and dehydrator location (latitude and longitude);

(b) glycol circulation rate, monthly natural gas throughput, and the date of the most recent throughput measurement;

(c) data and methodology used to estimate the PTE of VOC (must be a department approved calculation methodology);

(d) controlled and uncontrolled VOC emissions in tpy;

(e) type, make, model, and unique identification number of the control device or process the emissions are being routed;

(f) time and date stamp, including GPS of the location, of any monitoring;

(g) results of any equipment inspection, including maintenance or repair activities required to bring the glycol dehydrator into compliance; and

(h) a copy of the glycol dehydrator manufacturer specifications.

(2) An owner or operator complying with the requirements in Paragraph (1) or (2) of Subsection B of 20.2.50.118 NMAC through use of a control device as defined in this Part shall comply with the recordkeeping requirements in 20.2.50.115 NMAC.

(3) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.118 NMAC - N, XX/XX/2021]

20.2.50.119 HEATERS:

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[114] Ms. Bisbey-Kuehn testified that she was agreeable to this change to address the inconsistency between the allowed 95% downtime and the redundant VRU requirement in 20.2.50.115 NMAC. Bisbey-Kuehn Testimony, Tr. 7:2322:2-6

[115] Textor rebuttal testimony, NMOGA Exhibit 46: 14:16-26. Ms. Textor testified that the term "vapor" should replace "natural gas" because the off gases from a flash tank have a lower methane content than natural gas would have. Ms. Textor also testified that the redundant VRU concept must be clarified for purposes of glycol dehydrators. Rebuttal Testimony of Marise Textor, NMOGA Exhibit 46:15:39-46 – 16:1-16. This language clarifies that the redundant VRU requirement does not supersede the allowed 5% downtime.

[116] Textor rebuttal testimony, NMOGA Exhibit 46: 14:28-45, 15:1-16. Ms. Textor testified that prohibiting still vent and flash tank emissions venting to the atmosphere at all times is not possible, as there are unavoidable releases such as those due to emissions vented to the atmosphere via air pollution control equipment downstream of control. Prohibiting direct venting during normal operations better captures the regulation's goal.

A. Applicability: Natural gas-fired heaters with a rated heat input equal to or greater than 20 MMBtu/hour including heater treaters, heated flash separators, evaporator units, fractionation column heaters, and glycol dehydrator reboilers in use at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations are subject to the requirements of 20.2.50.119 NMAC.[117]

B. Emission standards:

(1) Natural gas-fired heaters shall comply with the emission limits in table 1 of 20.2.50.119 NMAC.

Table 1 - EMISSION STANDARDS FOR NO_x AND CO

Date of Construction:	NO_x (ppmvd @ 3% O_2)	CO (ppmvd @ 3% O_2)
Constructed or reconstructed before the effective date of 20.2.50 NMAC	30	400[118]
Constructed or reconstructed on or after the effective date of 20.2.50 NMAC	30	400

(2) Existing natural gas-fired heaters shall comply with the requirements of 20.2.50.119 NMAC no later than three years after the effective date of this Part.[119]

(3) New natural gas-fired heaters shall comply with the requirements of 20.2.50.119 NMAC upon startup.

C. Monitoring requirements:

(1) The owner or operator shall:

(a) conduct emission testing for NOx and CO within 180 days of the compliance date specified in Paragraph (2) or (3) of Subsection B of 20.2.50.119 NMAC and at least every two years thereafter.

(b) inspect, maintain, and repair the heater in accordance with the manufacturer specifications at least once every two years following the applicable compliance date specified in 20.2.50.119 NMAC. The inspection, maintenance, and repair shall include the following:

(i) inspecting the burner and cleaning or replacing components of the burner as necessary;

(ii) inspecting the flame pattern and adjusting the burner as necessary to optimize the flame pattern consistent with the manufacturer specifications;

(iii) inspecting the AFR controller and ensuring it is calibrated and functioning properly, if present;

(iv) optimizing total emissions of CO consistent with the NO_x requirement and manufacturer specifications, and good combustion practices; and

(v) measuring the concentrations in the effluent stream of CO in ppmvd and O_2 in volume percent before and after adjustments are made in accordance with Subparagraph (c) of Paragraph (2) of Subsection C of 20.2.50.119 NMAC.

(2) The owner or operator shall comply with the following periodic testing requirements:

(a) conduct three test runs of at least 20-minutes duration within ten percent of one-hundred percent peak, or the highest achievable, load;

(b) determine NO_X and CO emissions and O_2 concentrations in the exhaust with a portable analyzer used and maintained in accordance with the manufacturer specifications and following the procedures specified in the current version of ASTM D6522;

(c) if the measured NO_X or CO emissions concentrations are exceeding the emissions limits of table 1 of 20.2.50.119 NMAC, the owner or operator shall repeat the inspection and tune-up in Subparagraph (b) of Paragraph (1) of Subsection C of 20.2.50.119 NMAC within 30 days of the periodic testing; and

(d) if at any time the heater is operated in excess of the highest achievable load in a prior test plus ten percent, the owner or operator shall perform the testing specified in Subparagraph (a) of Paragraph (2) of Subsection C of 20.2.50.119 NMAC within 60 days from the anomalous operation.

[117] Lisowski rebuttal testimony, NMOGA Exhibit 43:12:22-35.
[118] Tr. 6:1944:7-13. NMED agreed with NMOGA's proposal to modify the CO emission limit for new and existing heaters from 300 ppmv to 400 for all units.
[119] Tr. 6:1944:14-17. NMED agreed with NMOGA's proposed extension of the compliance timeline to three years.

(3) When conducting periodic testing of a heater, the owner or operator shall follow the procedures in Paragraph (2) of Subsection C of 20.2.50.119 NMAC. An owner or operator may deviate from those procedures by submitting a written request to use an alternative procedure to the department at least 60 days before performing the periodic testing. In the alternative procedure request, the owner or operator must demonstrate the alternative procedure's equivalence to the standard procedure. The owner or operator must receive written approval from the department prior to conducting the periodic testing using an alternative procedure.

(4) Prior to a monitoring event, the owner or operator shall date and time stamp the event, and the required monitoring data entry shall be made in accordance with this Part.

(5) The owner or operator shall comply with the monitoring requirements of 20.2.50.112 NMAC.

D. Recordkeeping requirements: The owner or operator shall maintain a record of the following:

(1) unique identification number and location (latitude and longitude) of the heater;

(2) summary of the complete test report and the results of periodic testing; and

(3) inspections, testing, maintenance, and repairs, which shall include at a minimum:

(a) the date and time stamp, including GPS of the location, of the inspection, testing, maintenance, or repair conducted;

(b) name of the person(s) conducting the inspection, testing, maintenance, or repair;

(c) concentrations in the effluent stream of CO in ppmv and O_2 in volume percent; and

(d) the results of the inspections and any the corrective action taken.

(4) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.119 NMAC - N, XX/XX/2021]

20.2.50.120 HYDROCARBON LIQUID TRANSFERS:

A. Applicability: Hydrocarbon liquid transfers located at existing well sites, standalone tank batteries, gathering and boosting stations with one or more controlled storage vessels, natural gas processing plants, or transmission compressor stations are subject to the requirements of 20.2.50.120 NMAC within two years of the effective date of this Part. Hydrocarbon liquid transfers at existing gathering and boosting stations (including associated tank batteries) without any controlled storage vessels are subject to the requirements of 20.2.50.120 NMAC on the schedule specified in Paragraph 1 of Subsection B of 20.2.50.123 NMAC.[120] Hydrocarbon liquid transfers located at new well sites, tank batteries, gathering and boosting stations, natural gas processing plants, or transmission compressor stations are subject to the requirements of 20.2.50.120 NMAC upon startup. (1)[121] Any facility connected to oil sales pipelines that are routinely used for hydrocarbon liquid transfers are not subject to the requirements of 20.2.50.120 NMAC. (2) Well sites, tank batteries, gathering and boosting stations, natural gas processing plants, or transmission compressor stations not connected to an oil sales pipeline that load out hydrocarbon liquids to trucks fewer than thirteen (13) times in a calendar year are not subject to 20.2.50.120 NMAC. (3) When transferring hydrocarbon liquid from a transfer vessel to a storage vessel subject to the emission standards in 20.2.50.123 NMAC, no requirements under this Section apply.[122]

B. Emission standards:

(1) The owner or operator of a hydrocarbon liquid transfer operation shall use vapor balance, vapor recovery, or a control device to control VOC emissions by at least ninety-five percent, when transferring hydrocarbon liquid from a storage vessel to a tanker truck or tanker railcar for transport. If a combustion control device is used, the combustion device shall have a minimum design combustion efficiency of ninety-eight percent.

(2) An owner, operator, or personnel conducting the hydrocarbon liquid transfer using vapor balance shall:

(a) transfer the vapor displaced from the transfer truck or railcar being loaded back

[120] See NMOGA Brief at II.I.

[121] NMOGA believes that breaking these provisions into separate paragraphs enhances clarity.

[122] Smitherman testimony, NMOGA Exhibit A1:26:38-46, 27:1-2. Mr. Smitherman testified that it is economically impractical to capture vapors associated with hydrocarbon liquid transfer where a well production facility is connected to and utilizes an oil pipeline for routine oil sales. Associated VOC emissions would be small, since oil pipelines are typically reliable and truck loading is rare.

to the storage vessel being emptied via a pipe or hose connected before the start of the transfer operation. If multiple storage vessels are manifolded together in a tank battery, the vapor may be routed back to any storage vessel in the tank battery;

(b) ensure that the transfer does not begin until the vapor collection and return system is properly connected;

(c) inspect connector pipes, hoses, couplers, valves, and pressure relief devices for leaks;

(d) check the hydrocarbon liquid and vapor line connections for proper connections before commencing the transfer operation; and

(e) operate transfer equipment at a pressure that is less than the pressure relief valve setting of the receiving transport vehicle or storage vessel.

(3) Connector pipes and couplers shall be inspected and maintained free of ~~in a leak-free condition~~liquid leaks.

(4) Connections of hoses and pipes used during hydrocarbon liquid transfers shall be supported on drip trays that collect any leaks, and the materials collected shall be returned to the process or disposed of in a manner compliant with state law.

(5) Liquid leaks that occur shall be cleaned and disposed of in a manner that minimizes emissions to the atmosphere, and the material collected shall be returned to the process or disposed of in a manner compliant with state law.

(6) An owner or operator complying with Paragraph (1) of Subsection B of 20.2.50.120 NMAC through use of a control device shall comply with the control device requirements in 20.2.50.115 NMAC.

C. Monitoring requirements:

(1) The owner, operator, or their designated representative shall visually inspect the hydrocarbon liquid transfer equipment monthly at staffed locations and semi-annually at unstaffed locations to ensure that hydrocarbon liquid transfer lines, hoses, couplings, valves, and pipes are not dripping or leaking. At least once per calendar year, the inspection shall occur during a transfer operation. Leaking components shall be repaired to prevent dripping or leaking before the next transfer operation, or measures must be implemented to mitigate leaks until the necessary repairs are completed.[123]

(2) The owner or operator of a hydrocarbon liquid transfer operation controlled by a control device must follow manufacturer specifications[124] ~~recommended operation and maintenance procedures~~ for the device.

(3) Owners and operators complying with Paragraph (1) of Subsection B of 20.2.50.120 NMAC through use of a control device shall comply with the monitoring requirements in 20.2.50.115 NMAC.

(4) Prior to any monitoring event, the owner or operator shall date and time stamp the event, and the monitoring data entry shall be made in accordance with the requirements of this Part.

(5) The owner or operator shall comply with the monitoring requirements in 20.2.50.112 NMAC.

D. Recordkeeping requirements:

(1) The owner or operator shall maintain a record of the following:

(a) the location of the facility;

(b) if using a control device, the type, make, and model of the control device;

(c) the date and time stamp, including GPS of the location, of any inspection;

(d) the name of the person(s) conducting the inspection;

(e) a description of any problem observed during the inspection; and

(f) the results of the inspection and a description of any repair or corrective action taken.

(2) The owner or operator shall maintain a record for each site of the annual total hydrocarbon liquid transferred and annual total VOC emissions. Each calendar year, the owner or operator shall create a company-wide record summarizing the annual total hydrocarbon liquid transferred and the annual total calculated VOC emissions.

(3) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements: The owner or operator shall comply with the reporting requirements in

[123] Smitherman testimony, NMOGA Exhibit A1:27:37-46. Mr. Smitherman testified that it is no feasible for the owner/operator to inspect every hydrocarbon liquid transfer, because most well production facilities are unmanned.

[124] This is the defined term in Section 20.2.50.112 NMAC and should be used.

20.2.50.112 NMAC.
[20.2.50.120 NMAC - N, XX/XX/2021]

20.2.50.121 PIG LAUNCHING AND RECEIVING:[125]

A. Applicability: Individual pipeline pig launcher and receiver operations with a PTE equal to or greater than one tpy VOC located within the property boundary of, and under common ownership or control with, well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations are subject to the requirements of 20.2.50.121 NMAC.[126]

B. Emission standards:

(1) Owners and operators of affected pipeline pig launcher and receiver operations shall capture and reduce VOC emissions from pigging operations by at least ninety-five percent within two years of the effective date of this Part. If a combustion control device is used, the combustion device shall have a minimum design combustion efficiency of ninety-eight percent.[127]

(2) The owner or operator conducting an affected pig launching and receiving operation shall:[128]

(a) employ best management practices to minimize the liquid present in the pig receiver chamber and to minimize emissions from the pig receiver chamber to the atmosphere after receiving the pig in the receiving chamber and before opening the receiving chamber to the atmosphere;

(b) employ a method to ~~prevent~~ minimize emissions, such as installing a liquid ramp or drain, routing a high-pressure chamber to a low-pressure line or vessel, using a ball valve type chamber, or using multiple pig chambers;

(c) recover and dispose of receiver liquid in a manner that minimizes emissions to the atmosphere to the extent practicable; and

(d) ensure that the material collected is returned to the process or disposed of in a manner compliant with state law.

(3) The emission standards in Paragraphs (1) and (2) of Subsection B of 20.2.50.121 NMAC cease to apply to an individual pipeline pig launching and receiving operation if the actual annual VOC emissions of the launcher or receiver operation are less than one tpy of VOC.

(4) An owner or operator complying with Paragraph (2) of Subsection B of 20.2.50.121 NMAC through use of a control device shall comply with the control device requirements in 20.2.50.115 NMAC. An owner or operator complying through use of a portable control device shall install the device consistent with manufacturer's specifications and is not subject to the requirements of 20.2.50.115 NMAC.

C. Monitoring requirements:

(1) The owner or operator of an affected pig launching and receiving site shall inspect the equipment for leaks using AVO, RM 21, or OGI on either:

(a) a monthly basis if pigging operations at a site occur on a monthly basis or more frequently; or

(b) prior to the commencement and after the conclusion of the pig launching or receiving operation, if less frequent.[129]

(2) The monitoring shall be performed using the methodologies outlined in Subsection (C) of 20.2.50.116 NMAC as applicable and at the frequency required in Paragraph (1) of Subsection (C) of 20.2.50.121 NMAC. The monitoring shall be performed when the pig trap is under pressure.

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[125] NMOGA has argued this section should be stricken in its entirety. *See* NMOGA Final Brief.
[126] Textor rebuttal testimony, NMOGA Exhibit 46:3-5. Ms. Textor testified that the rule should only apply to those individual onsite pig launchers or receivers with emissions greater than or equal to one ton per year VOC to improve cost effectiveness.; Textor rebuttal testimony, NMOGA Exhibit 46:6:34-44, 7:1-14. Ms. Textor testified that it is not feasible to install a pipeline pressure storage tank, a vapor recovery system on a depressurization vessel, and a compressor at off-site locations. Similarly, facilities to control emissions such as flares or combustors would virtually never be available at offsite locations and would need to be brought in as portable equipment for each pigging event, further escalating costs.
[127] Textor rebuttal testimony, NMOGA Exhibit 46: 8:29-45, 9:1-32. Ms. Textor testified that a emissions reduction of 98% would be difficult to achieve, because devices only achieve that level under steady state conditions. Efficiency in practice will be lower, so the rule should require no more than a design destruction efficiency of 95% control efficiency.
[128] Textor rebuttal testimony, NMOGA Exhibit 46: 10:7-27. Ms. Textor testified that emissions cannot be prevented, they can only be minimized. The rule's language should reflect that.
[129] Textor rebuttal testimony, NMOGA Exhibit 46: 11:31-41. Ms. Textor testified that monthly inspections and inspections before and immediately after launch are more cost effective and likely as effective in reducing emissions.

(3) An owner or operator complying with Paragraph (1) of Subsection B of 20.2.50.121 NMAC through use of a control device shall comply with the monitoring requirements in 20.2.50.115 NMAC. A portable control device shall be installed consistent with manufacturer's specifications and is not subject to the requirements of 20.2.50.115 NMAC.

(4) The owner or operator shall comply with the monitoring requirements in 20.2.50.112 NMAC.

D. Recordkeeping requirements:

(1) The owner or operator of an affected pig launching and receiving site shall maintain a record of the following:

(a) the pigging operation, including the location, date, and time of the pigging operation;

(b) the data and methodology used to estimate the actual emissions to the atmosphere and used to estimate the PTE;

(c) date and time of any monitoring and the results of the monitoring; and

(d) the type of control device and its make and model.

(2) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.121 NMAC - N, XX/XX/2021]

20.2.50.122 PNEUMATIC CONTROLLERS AND PUMPS:

A. Applicability: Natural gas-driven pneumatic controllers and pumps located at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations are subject to the requirements of 20.2.50.122 NMAC.

B. Emission standards:

(1) A new natural gas-driven pneumatic controller or pump shall comply with the requirements of 20.2.50.122 NMAC upon startup.

(2) An existing natural gas-driven pneumatic pump shall comply with the requirements of 20.2.50.122 NMAC within three years of the effective date of this Part.

(3) An owner or operator shall ensure that its existing natural gas-driven pneumatic controllers shall comply with the requirements of 20.2.50.122 NMAC according to the following schedule[130]:

Table 1 – WELL SITES, STAND ALONE TANK BATTERIES, GATHERING AND BOOSTING STATIONS

Total Historic Percentage of Non-Emitting Controllers	Total Required Percentage of Non-Emitting Controllers by January 1, 2024	Total Required Percentage of Non-Emitting Controllers by January 1, 2027	Total Required Percentage of Non-Emitting Controllers by January 1, 2030
> 75%	80%	85%	90%
> 60-75%	80%	85%	90%
> 40-60%	65%	70%	80%
> 20-40%	45%	70%	80%
0-20%	25%	65%	80%

Table 2 – TRANSMISSION COMPRESSOR STATIONS AND GAS PROCESSING PLANTS

Total Historic Percentage of Non-Emitting	Total Required Percentage of Non-	Total Required Percentage of Non-	Total Required Percentage of Non-

[130] Change made to reflect testimony by Ms. Kuehn and evident intent of provision to require each owner/operator to reduce the number of pneumatic controllers in its operations by the specified percentage. It is obvious from the testimony of all witnesses that an individual controller cannot partially reduce emissions but must be retrofitted to a non-emitting controller or replaced or eliminated. It is obvious from the testimony of all witnesses that the reduction percentages are aimed at the group of existing controllers as an individual controller cannot partially reduce emissions but must be retrofitted to a non-emitting controller or replaced or eliminated. Bisbey-Kuehn testimony, Tr. 7:2027:9-13 ("the proposed provisions of this section will likely achieve higher emission reductions from pneumatic controllers by targeting reductions in the overall number of emitting controllers…"); 7:2029:6-7:2030:9 (referencing changes to the "fleet" of controllers).

Controllers	Emitting Controllers by January 1, 2024	Emitting Controllers by January 1, 2027	Emitting Controllers by January 1, 2030
> 75%	80%	95%	98%
> 60-75%	80%	95%	98%
> 40-60%	65%	95%	98%
> 20-40%	50%	95%	98%
0-20%	35%	95%	98%

(4) Standards for natural gas-driven pneumatic controllers.

(a) new pneumatic controllers shall have an emission rate of zero. A natural gas driven pneumatic controller replacing an existing natural gas driven pneumatic controller at an existing facility is an existing pneumatic controller for purposes of Section 20.2.50.122.[131]

(b) owners and operators of existing pneumatic controllers shall meet the required percentage of non-emitting controllers within the deadlines in tables 1 and 2 of Paragraph (3) of Subsection B of 20.2.50.122 NMAC, and shall comply with the following:

(i) by July ~~anuary~~ 1, 2023,[132] the owner or operator shall determine the total controller count for all controllers subject to each table separately[133] at all of the owner or operator's affected facilities that commenced construction before the effective date of this Part. The total controller count for each table must include all emitting pneumatic controllers and all non-emitting pneumatic controllers, except that pneumatic controllers necessary for a safety or process purpose that cannot otherwise be met without emitting natural gas shall not be included in the total controller count. This final number is the total historic controller count. Controllers identified as required for a safety or process purpose after July 1, 2023 shall not affect the total historic controller count.[134]

(ii) determine which controllers in the total controller count for each table are non-emitting and sum the total number of non-emitting controllers and designate those as total historic non-emitting controllers.

(iii) determine the total historic non-emitting percent of controllers for each table by dividing the total historic non-emitting controller count by the total historic controller count and multiplying by 100.

(iv) based on the percent calculated in (iii) above for each table, the owner

[131] In her testimony, Ms. Kuehn clearly stated that "like kind replacement" of existing controllers at existing facilities should not trigger the "new" controller provision, to avoid inadvertent or unplanned conversion of facilities. Kuehn/Palmer testimony, Tr. 7:2039:12-17; NMOGA Exhibit 47, 46:38-40, 48:35 – 49:2.

[132] Ms. Kuehn stated a general intent to achieve a January 1, 2023 date. Kuehn/Palmer testimony, Tr. 7:2042:8-11. However, the progress of the rulemaking has been slower, Ms. Kuehn agreed that more devices may be needed for safety or process purposes, Kuhn/Palmer testimony, Tr. 7:2040:2-2041:5. Mr. Smitherman testified that this couldn't be done in 6 months, Smitherman testimony, Tr. 7:2108:11-27, Ms. Nolting testified that completing the inventory was extremely time consuming already, Nolting testimony, Tr. 7:2284:19-21,:and Ms. Kuehn testified that the documentation was needed only for those that would otherwise be phased out, which suggests a rolling evaluation (for other than high-bleed devices), which reduces the immediate burden. Kuehn/Palmer testimony, Tr. 7:2041:10-20. Given this testimony and the fact that the first deadline for reductions is January 1, 2024, NMOGA believes that Ms. Kuehn may not have appreciated the infeasibility of the January 1, 2023 date in light of the changes discussed and the role of pneumatic controllers needed for safety or process reasons. NMOGA believes a July 1, 2023 date provides more time for the resource intensive inventory. This would also be the date used to "set" the phase out schedule in tables 1 and 2. This then gives owners/operators 66 more months to ensure that they can meet the first phase out deadline on January 1, 2024.

[133][133] Ms. Kuehn's testimony is based upon reductions occurring at each "group" of table 1 or table 2 facilities. However, the calculation methodology does not distinguish between the table 1 and table 2 facilities. Separate calculation for each table is needed to create an "apples to apples" comparison to track progress between "historic" and January 1, 2024, January 1, 2027 and January 1, 2030 performance. Otherwise, an operator's failure to make progress at its table 1 sites may result in its table 2 sites being in violation and vice versa. This is surely not the intended result.

[134] Change made to reflect reality that not all devices required for safety or process reasons will be known by either January 1, 2023 or July 1, 2023. Kuehn/Palmer testimony, Tr. 7:2042:5-7 (conceding that "ideally" the devices could be identified by January 1, 2023). As Mr. Smitherman testified, some of these devices are necessary to provide a safe working environment and the rule needs to allow this. Smitherman testimony, NMOGA Exhibit A1:30:4-16. The change allows for future additions but provides that they do not affect the total historic controller count used to establish obligations under tables 1 and 2. NMOGA believes that this is consistent with the Department's intent and provides a route to maintain controllers required for safety or process reasons if missed during the initial pass.

or operator shall determine which provisions of tables 1 and 2 of Paragraph (3) of Subsection B of 20.2.50.122 NMAC apply and the replacement schedule the owner or operator must meet.

(v) if an owner or operator meets at least seventy-five percent total non-emitting controllers using the calculation methodology in paragraph (4)(c)[135] by January 1, 2025, for either or both table 1 or table 2, the owner or operator is not thereafter[136] subject to the requirements of ~~tables 1 and 2~~that table(s) of Paragraph (3) of Subsection B of 20.2.50.122 NMAC.

(vi) if after January 1, 2027, an owner or operator's remaining pneumatic controllers are not cost-effective to retrofit, the owner or operator may submit a cost analysis of retrofitting those remaining units to the department. The department shall review the cost analysis and determine whether those units qualify for a waiver from meeting additional retrofit requirements.

(c) owners and operators of existing natural gas driven pneumatic controllers shall demonstrate compliance with tables 1 and 2 of Paragraph (3) of Subsection B of 20.2.50.122 NMAC, on ~~-~~January 1, 2024, January 1, 2027, and January 1, 2030, as follows:

(i) determine which controllers are emitting (excluding pneumatic controllers necessary for safety or process reasons pursuant to Paragraph (4)(d) of Subsection B of 20.2.50.122 NMAC) and sum the total number of emitting controllers for table 1 and table 2 facilities separately.

(ii) determine the percentage of non-emitting controllers by using the following equation for table 1 and table 2 facilities separately:

Total percentage of non-emitting controllers = 100 – ((total emitting controllers / total historic controller count) x 100)

(iii) compliance is demonstrated if the Total Percentage of Non-Emitting Controllers calculated pursuant to Paragraph (4)(c)(ii) is less than or equal to the value for that year in the Total Historic Percentage of Non-Emitting Controllers row (calculated in Paragraph (4)((b)(iv)) of table 1 or table [137]2, as applicable, of Paragraph (3) of Subsection B of 20.2.50.122 NMAC.

(de) No later than January 1, 2024[138], a pneumatic controller with a bleed rate greater than six standard cubic feet per hour ~~-~~is permitted only when the owner or operator has demonstrated that a higher bleed rate is required based on functional needs, including response time, safety, and positive actuation. An owner or operator that seeks to maintain operation of an emitting pneumatic controller as excepted for process or safety reasons under clause (i) of subparagraph (a) of Paragraph (4) of Subsection B of 20.2.50.122 NMAC must prepare and document the justification for the safety or process purpose prior to the installation of a new emitting controller or the retrofit of an existing controller.[139] The justification shall be certified by a qualified professional or inhouse

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[135] This provision is added to establish how to count non-emitting controllers for compliance purposes after the initial count. See the rationale for Paragraph (4)(c) below for details.

[136] Change made to reflect Ms. Kuehn's testimony that sources that meet the 75% prior to January 1, 2025 date must still meet the January 1, 2024 reduction percentage. Kuehn/Palmer testimony, Tr. 7:2043:16-7:2045:21.

[137] The rule as drafted does not establish a compliance methodology to demonstrate compliance with the January 1, 2024, 2027 and 2030 compliance dates. NMOGA proposes new paragraph (4)(c) to meet this need. While tables 1 and 2 talk about percent of "non-emitting controllers," for purposes of phasing out, what is important is reducing the number of emitting controllers. In addition, Paragraph (1) of both Subsections C and D do not require records of non-emitting controllers, so there is no non-emitting controller data to use. Therefore, NMOGA uses the "emitting controller count," excluding pneumatic controllers "permitted" because necessary for safety or process reasons. Kuehn/Palmer testimony, Tr. 7:2041:1-5. NMOGA then proposes use of the equation: 100 – ((existing controller count (in 2024, 2027 or 2030) / total historic controller count) x 100, which gives a final value directly comparable to tables 1 and 2 of Paragraph (3) of Subsection B of 20.2.50.122 NMAC. In essence, if 100% is the total number of emitting and non-emitting controllers, and we subtract the percentage of emitting controllers, what is left is the percentage of non-emitting controllers.

[138] Upon reviewing the final language, NMOGA realized that this provision "phases out" high-bleed devices unless the required demonstration is made. This cannot be accomplished by the effective date. In its proposal, NMOGA had proposed to phase out all non-safety/process high-bleed controllers within two years. NMOGA thus proposes to align the phase out with the January 1, 2024 first compliance date, allowing just less than two-years to inventory and prepare the justification for high bleeds, resulting in an effective phase out. NMOGA Exhibit 47, 48:33-34 ("High Bleed Controller shall be retrofitted or replaced no later than January 1, 2024 unless" demonstrated as necessary for safety or process reasons).

[139] NMOGA appreciates the inclusion of this provision as certain pneumatic controllers are required for process and safety reasons. NMOGA believes, however, that the language as currently written might "freeze" in place high-bleed devices (to qualify for the exception) when low-bleed or intermittent devices might be used. In her testimony, Ms. Kuehn indicated that this was not

engineer.

(ed) Temporary pneumatic controllers that emit natural gas and are used for well abandonment activities or used prior to or through the end of flowback, and pneumatic controllers used as emergency shutdown devices located at a well site, are not subject to the requirements of Subsection B of 20.2.50.122 NMAC.

(fe) Temporary or portable pneumatic controllers that emit natural gas and are on-site for less than 90 days are not subject to the requirements of Subsection B of 20.2.50.122 NMAC.

(5) Standards for natural gas-driven pneumatic diaphragm pumps.

(a) new pneumatic diaphragm pumps located at natural gas processing plants shall have an emission rate of zero.

(b) new pneumatic diaphragm pumps located at well sites, tank batteries, gathering and boosting stations, or transmission compressor stations with access to commercial line electrical power shall have an emission rate of zero.

(c) existing pneumatic diaphragm pumps located at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, or transmission compressor stations with access to commercial line electrical power shall have an emission rate of zero within two years of the effective date of this Part.

(d) owners and operators of pneumatic diaphragm pumps located at well sites, tank batteries, gathering and boosting stations, or transmission compressor stations without access to commercial line electrical power shall reduce VOC emissions from the pneumatic diaphragm pumps by ninety-five percent if it is technically feasible to route emissions to a control device, fuel cell, or process. If there is a control device available onsite but it is unable to achieve a ninety-five percent emission reduction, and it is not technically feasible to route the pneumatic diaphragm pump emissions to a fuel cell or process, the owner or operator shall route the pneumatic diaphragm pump emissions to the control device within two years of the effective date of this Part.

C. Monitoring requirements:

(1) Pneumatic controllers or diaphragm pumps not using natural gas or other hydrocarbon gas as a motive force are not subject to the monitoring requirements in Subsection C of 20.2.50.122 NMAC.

(2) No later than January 1, 2023,[140] t~~T~~he owner or operator of a facility with one or more natural gas-driven pneumatic controllers subject to the deadlines set forth in tables 1 and 2 of Paragraph (3) of Subsection B of 20.2.50.122 NMAC shall monitor the compliance status of each subject pneumatic controller at each facility.

(3) The owner or operator of a natural gas-driven pneumatic controller shall, on a monthly basis, conduct an AVO or OGI inspection, and shall also inspect the pneumatic controller, perform necessary maintenance (such as cleaning, tuning, and repairing a leaking gasket, tubing fitting and seal; tuning to operate over a broader range of proportional band; eliminating an unnecessary valve positioner), and maintain the pneumatic controller according to manufacturer specifications to ensure that the VOC emissions are minimized.

(4) Within two years of the effective date, t~~T~~he owner or operator's ~~database~~data systems shall contain the following for each in-service natural gas-driven pneumatic controller[141]:

(a) ~~natural gas-driven~~ pneumatic controller unique identification number;

(b) type of controller (continuous or intermittent);

(c) if continuous, design continuous bleed rate in standard cubic feet per hour;

(d) if intermittent, bleed volume per intermittent bleed in standard cubic feet; and

(e) if continuous, design annual bleed rate in standard cubic feet per year.

(5) Upon the effective date for the facility in 20.2.50.116 NMAC, t~~T~~he owner or operator of a natural gas-driven pneumatic diaphragm pump shall, on a monthly basis, conduct an AVO or OGI inspection and shall also inspect the pneumatic pump and perform necessary maintenance, and maintain the pneumatic pump

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the Department's intent. The language changes reflect that discussion and allow lower emitting devices to be substituted for higher emitting ones. This advances the goal of reducing release of natural gas.

[140] Change aligns the start date with completion of the inventory.

[141] Paragraph (3) of Subsection A of proposed 20.2.50.112 NMAC provides two years to establish the data system. This provision needs to be consistent as data cannot be recorded until the system is in place. Mr. Smitherman indicated two years would be needed and Ms. Kuehn agreed that NMED's experience is that such systems take more than a year to set up. Bisbey-Kuehn testimony, Transcript 5:1370:3-8; *see also* Smitherman testimony, Tr. 5:1427:21-5:1428:25; Brown testimony, Tr. 5:1437:19-5:1439:11.

according to manufacturer specifications to ensure that the VOC emissions are minimized.[142]

(6) The owner or operator of a natural gas-driven pneumatic controller shall comply with the requirements in Paragraph (3) of Subsection C or Subsection D of 20.2.50.116 NMAC, applicable to the facility type at which the pneumatic controller is installed on the effective date specified in section 20.2.50.116 NMAC. During instrument inspections, operators shall use RM 21, OGI, or alternative instruments used under Subsection D of 20.2.50.116 NMAC to verify that intermittent controllers are not emitting when not actuating. Any intermittent controller emitting when not actuating shall be repaired consistent with Subsection E of 20.2.50.116 NMAC.[143]

(7) Prior to any monitoring event, the owner or operator shall date and time stamp the event, and the monitoring data entry shall be made in accordance with the requirements of this Part.

(8) The owner or operator shall comply with the monitoring requirements in 20.2.50.112 NMAC.

D. Recordkeeping requirements:

(1) Non-emitting pneumatic controllers and diaphragm pumps are not subject to the recordkeeping requirements in Subsection D of 20.2.50.122 NMAC.

(2) The owner or operator shall maintain a record of the total historic[144] controller count for all controllers at all of the owner or operator's affected facilities that commenced operation before the effective date of this Part. The total controller count must include all emitting and non-emitting pneumatic controllers.

(3) The owner or operator shall maintain a record of the total count of natural gas-driven pneumatic controllers necessary for a safety or process purpose that cannot otherwise be met without emitting VOC.

(4) The owner or operator of a natural gas-driven pneumatic controller subject to the requirements in tables 1 and 2 of Paragraph (3) of Subsection B of 20.2.50.122 NMAC shall generate a schedule for meeting the compliance deadlines for each pneumatic controller. The owner or operator shall keep a record of the compliance status of each subject controller. On or before January 1, 2024, January 1, 2027 and January 1, 2030, the owner or operator shall make and retain the compliance demonstration set forth in Paragraph (4)(c) of Subsection B of 20.2.50.122 NMAC.[145]

(5) The owner or operator shall maintain an electronic record for each natural gas-driven pneumatic controller. The record shall include the following:

(a) pneumatic controller unique identification number;

(b) time and date stamp, including GPS of the location, of any monitoring;

(c) name of the person(s) conducting the inspection;

(d) AVO or OGI inspection result;

(e) AVO or OGI level discrepancy in continuous or intermittent bleed rate;

(f) record of the controller type, bleed rate, or bleed volume required in Subparagraphs (b), (c), (d), and (e) of Paragraph (4) of Subsection C on 20.2.50.122 NMAC.

(g) maintenance date and maintenance activity; and

(h) a record of the justification and certification required in Subparagraph (c) of Paragraph (4) of Subsection B of 20.2.50.122 NMAC.

(6) The owner or operator of a natural gas-driven pneumatic controller with a bleed rate greater than six standard cubic feet per hour shall maintain a record documenting why a bleed rate greater than six scf/hr is necessary, as required in Subsection B of 20.2.50.122 NMAC. This demonstration shall be completed by July 1, 2023 for controllers with a bleed rate greater than six scf/hr and as necessary for controllers with a bleed rate less than or equal to six scf/hr.[146]

(7) The owner or operator shall maintain a record for a natural gas-driven pneumatic pump

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[142] This is an LDAR requirement. LDAR on a particular piece of a facility should be started when the facility starts LDAR under proposed 20.2.50.116 NMAC. Piecemeal implementation adds cost, double mobilization, and makes compliance difficult as the full LDAR system is not ready prior to its design and implementation under section 20.2.50.116 NMAC. Smitherman testimony, NMOGA Exhibit A1:21:16-39.

[143] This is an LDAR requirement. LDAR on a controllers at a facility should be started when the facility starts LDAR under proposed 20.2.50.116 NMAC. Piecemeal implementation adds cost, double mobilization, and makes compliance difficult as the full LDAR system is not ready prior to its design and implementation under section 20.2.50.116 NMAC. Smitherman testimony, NMOGA Exhibit A1:21:16-39.

[144] Added for consistency with NMOGA's proposed changes.

[145] This provision added to memorialize the compliance demonstration contemplated in new paragraph (4)(c) of Subsection B of 20.2.50.122 NMAC.

[146] Language harmonizes recordkeeping provision with schedule for phase out of High Bleed Controllers while allowing for designation of smaller units, as indicated in Ms. Kuehn's testimony. Bisbey-Kuehn testimony, Tr. 7:2040:17-7:2041:9.

with an emission rate greater than zero and the associated pump number at the facility. The record shall include:

(a) for a natural gas-driven pneumatic diaphragm pump in operation less than 90 days per calendar year, a record for each day of operation during the calendar year.

(b) a record of any control device designed to achieve at least ninety-five percent emission reduction, including an evaluation or manufacturer specifications indicating the percentage reduction the control device is designed to achieve.

(c) records of the engineering assessment and certification by a qualified professional or inhouse engineer that routing pneumatic pump emissions to a control device, fuel cell, or process is technically infeasible.

(8) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.122 NMAC - N, XX/XX/2021]

20.2.50.123 STORAGE VESSELS

A. Applicability: New storage vessels with a PTE equal to or greater than two tpy of VOC, existing storage vessels in multi-tank batteries with a PTE equal to or greater than three tpy of VOC, and existing storage vessels in single tank batteries with a PTE equal to or greater than six[147] ~~four~~ tpy of VOC are subject to the requirements of 20.2.50.123 NMAC. Storage vessels in multi-tank batteries manifolded together such that all vapors are shared between the headspace of the storage vessels and are routed to a common outlet or endpoint may determine an individual storage vessel PTE by averaging the emissions across the total number of storage vessels. Storage vessels at produced water management units are exempt from this section except as provided in Subsection B of 20.2.50.126 NMAC[148].

B. Emission standards:

(1) An existing storage vessel subject to this Section shall have a combined capture and control of VOC emissions of at least ninety-five percent according to the following schedule. If a combustion control device is used, the combustion device shall have a minimum design combustion efficiency of ninety-eight percent.

(a) By January 1, 2025, an owner or operator shall ensure at least 30% of the company's existing storage vessels are controlled;

(b) By January 1, 2027, an owner or operator shall ensure at least an additional 35% of the company's existing storage vessels are controlled; and

(c) By January 1, 2029, an owner or operator shall ensure the company's remaining existing storage vessels are controlled.

(2) A new storage vessel subject to this Section shall have a combined capture and control of VOC emissions of at least ninety-five percent upon startup. If a combustion control device is used, the combustion device shall have a minimum design combustion efficiency of ninety-eight percent.[149]

(3) The emission standards in Subsection B of 20.2.50.123 NMAC cease to apply to a storage vessel if the actual annual VOC emissions decrease to less than two tpy.

(4) If a control device is not installed by the date specified in Paragraphs (1) and (2) of Subsection B of 20.2.50.123 NMAC, an owner or operator may comply with Subsection B of 20.2.50.123 NMAC by shutting in the well supplying the storage vessel by the applicable date, and not resuming production from the well until the control device is installed and operational.

(5) The owner or operator of a new or existing storage vessel with a thief hatch shall ensure that the thief hatch is capable of opening sufficiently to relieve overpressure in the vessel and to automatically close once the vessel overpressure is relieved. Any pressure relief device installed must automatically close once the vessel overpressure is relieved.

(6) An owner or operator complying with Paragraphs (1) and (2) of Subsection B of

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[147] See NMOGA Brief II.L.

[148] This language is added to clarify how proposed 20.2.50.123 and 20.2.50.126 NMAC work together for storage vessels at produced water management units. As the testimony showed, storage vessels or tanks at these facilities have difficult to predict potential to emit, may have unrealistically high potential to emit compared to actual VOCs lost from the process, and may require extensive supplemental fuel to control, with adverse ozone effects. Therefore, it is proposed to address these storage vessels first under 20.2.50.126. If 20.2.50.126 determines that section 20.2.50.123 controls are appropriate, then they would comply.

[149] Meyer rebuttal testimony, NMOGA Exhibit 42:11:34-37, 12:1-17. Mr. Meyer testified that a control device can be designed with 98% control, but that level of control cannot be guaranteed during operation.

20.2.50.123 NMAC through use of a control device shall comply with the control device operational requirements in 20.2.50.115 NMAC.

C. Storage vessel measurement requirements: Owners and operators of new storage vessels required to be controlled pursuant to this Part at well sites, tank batteries, gathering and boosting stations, or natural gas processing plants shall use a storage vessel measurement system to determine the quantity of liquids in the storage vessel(s). New tank batteries receiving an annual average of 200 bbls oil/day or more with available grid power shall be outfitted with a lease automated custody transfer (LACT) unit(s).

(1) The owner or operator shall keep thief hatches (or other access points to the vessel) and pressure relief devices on storage vessels equipped with a storage vessel measurement system [150]closed and latched during activities to determine the quantity of liquids in the storage vessel(s), except as necessary for custody transfer. Tank batteries equipped with LACT units shall use the LACT unit measurements and samples[151] in lieu of ~~field testing of~~opening the thief hatch to test quantity and quality except in case of malfunction. Nothing in this paragraph shall be construed to prohibit the opening of thief hatches, pressure relief devices, or any other openings or access points to perform maintenance or similar activities designed to ensure the safety or proper operation of the storage vessel(s) or related equipment or processes. Where opening a thief hatch is necessary, owners and operators of new and existing storage vessels shall minimize the time the thief hatch is open.

(2) The owner or operator may inspect, test, and calibrate the storage vessel measurement system either semiannually, or as directed by the Bureau of Land Management (see 43 C.F.R. Section 374.6(b)(5)(ii)(B) (November 17, 2016)) or system manufacturer. Opening a thief hatch if required to inspect, test, or calibrate the vessel measurement system is not a violation of Paragraph (1) of this Subsection.

(3) The owner or operator shall install signage at or near the storage vessel that indicates which equipment and method(s) are used and the appropriate and necessary operating procedures for that system.

(4) The owner or operator shall develop and implement an annual training program for employees and third parties conducting activities subject to this Subsection that includes, at a minimum, operating procedures for each type of system.

(5) The owner or operator must make and retain the following records for at least two (2) years and make such records available to the department upon request:

(a) date of construction of the storage vessel or facility;

(b) description of the storage vessel measurement system used to comply with this Subsection;

(c) date(s) of storage vessel measurement system inspections, testing, and calibrations that require opening the thief hatch pursuant to Paragraph (~~3~~1[152]) of this Subsection;

(d) manufacturer specifications regarding storage vessel measurement system inspections and/or calibrations, if followed pursuant to Paragraph (3) of this Subsection; and

(e) records of the annual training program, including the date and names of persons trained.

D. Monitoring requirements: The owner or operator of a storage vessel shall:

(1) Effective January 1, 2023, monthly, monitor, or calculate or estimate, the total monthly liquid throughput (in barrels) and the upstream separator pressure (in psig) if the storage vessel is directly downstream of a separator. When a storage vessel is unloaded less frequently than monthly, the throughput and separator pressure monitoring shall be conducted before the storage vessel is unloaded;

(2) conduct an AVO inspection on a weekly basis. If the storage vessel is unloaded less frequently than weekly, the AVO inspection shall be conducted before the storage vessel is unloaded;

(3) inspect the storage vessel monthly to ensure compliance with the requirements of 20.2.50.123 NMAC. The inspection shall include a check to ensure the vessel does not have a leak;

(4) prior to any monitoring event, the owner or operator shall date and time stamp the event, and the monitoring data entry shall be made in accordance with the requirements of this Part.

(5) comply with the monitoring requirements in 20.2.50.115 NMAC if using a control device to comply with the requirements in Paragraphs (1) and (2) of Subsection B of 20.2.50.123 NMAC; and

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[150] As written, the provision applied the prohibition on opening the thief hatch to storage vessels without a storage vessel measurement system. Alternatively, "new" could be added before storage vessel in line 29. NMOGA has proposed this language to use the storage vessel measurement system whenever available.

[151] Language added to clarify that the LACT unit does not give readouts on quality, but enables quality samples to be taken of the oil passing through the unit without opening the thief hatch. *See generally* Smitherman rebuttal testimony, NMOGA Exhibit 41:10:38 - 12:15

[152] It appears that this is a typo in the original.

(6) comply with the monitoring requirements of 20.2.50.112 NMAC.

E. Recordkeeping requirements:

(1) Effective January 1, 2023, m~~M~~onthly, the owner or operator shall maintain a record for each storage vessel of the following:

(a) unique identification number and location (latitude and longitude);

(b) monitored, calculated, or estimated monthly liquid throughput;

(c) the upstream separator pressure, if a separator is present;

(d) the data and methodology used to calculate the actual emissions of VOC (tpy);

(e) the controlled and uncontrolled VOC emissions (tpy); and

(f) the type, make, model, and identification number of any control device.

(2) A record of liquid throughput shall be verified by dated liquid level measurements, a dated delivery receipt from the purchaser of the hydrocarbon liquid, the metered volume of hydrocarbon liquid sent downstream, or other proof of transfer.

(3) A record of the inspections required in Subsections C and D of 20.2.50.123 NMAC shall include:

(a) the date and time stamp, including GPS of the location, of the inspection;

(b) the person(s) conducting the inspection;

(c) a description of any problem observed during the inspection; and

(d) a description and date of any corrective action taken.

(4) An owner or operator complying with the requirements in Paragraphs (1) and (2) of Subsection B of 20.2.50.123 NMAC through use of a control device shall comply with the recordkeeping requirements in 20.2.50.115 NMAC.

(5) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

F~~E~~. Reporting requirements:

(1) An owner or operator complying with the requirements in Paragraphs (1) and (2) of Subsection B of 20.2.50.123 NMAC through use of a control device shall comply with the reporting requirements in 20.2.50.115 NMAC.

(2) The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.123 NMAC - N, XX/XX/2021]

20.2.50.124 WELL WORKOVERS[153]

A. Applicability: Workovers performed at oil and natural gas wells are subject to the requirements of 20.2.50.124 NMAC as of the effective date of this Part.

B. Emission standards: The owner or operator of an oil or natural gas well shall use the following best management practices during a workover to minimize emissions, consistent with the well site condition and good engineering or operational practices:

(1) reduce wellhead pressure before blowdown to minimize the volume of natural gas vented;

(2) monitor manual venting at the well until the venting is complete; and

(3) route natural gas to the sales line, if possible.

C. Monitoring requirements:

(1) The owner or operator shall monitor the following parameters during a workover:

(a) wellhead pressure;

(b) flow rate of the vented natural gas (to the extent feasible); and

(c) duration of venting to the atmosphere.

(2) The owner or operator shall calculate the estimated volume and mass of VOC vented during a workover.

(3) The owner or operator shall comply with the monitoring requirements in 20.2.50.112 NMAC.

D. Recordkeeping requirements:

(1) The owner or operator shall keep the following record for a workover:

(a) unique identification number and location (latitude and longitude) of the well;

[153] NMOGA has argued this section should be stricken in its entirety. *See* NMOGA Final Brief.

(b) date the workover was performed;
(c) wellhead pressure;
(d) flow rate of the vented natural gas to the extent feasible, and if measurement of the flow rate is not feasible, the owner or operator shall use the maximum potential flow rate in the emission calculation;
(e) duration of venting to the atmosphere;
(f) description of the best management practices used to minimize release of VOC emissions before and during the workover;
(g) calculation of the estimated VOC emissions vented during the workover based on the duration, volume, and gas composition; and
(h) the method of notification to the public and proof that notification was made to the affected public.

(2) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements

(1) The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

(2) If it is not feasible to prevent VOC emissions from being emitted to the atmosphere from a workover event, the owner or operator shall notify by certified mail, or by other effective means of notice so long as the notification can be documented, all residents located within one-quarter mile of the well of the planned workover at least three calendar days before the workover event.

(3) If the workover is needed for routine or emergency downhole maintenance to restore production lost due to upsets or equipment malfunction, the owner or operator shall notify all residents located within one-quarter mile of the well of the planned workover at least 24 hours before the workover event.[154]

[20.2.50.124 NMAC - N, XX/XX/2021]

20.2.50.125 SMALL BUSINESS FACILITIES

A. Applicability: Small business facilities as defined in this Part are subject to the requirements of 20.2.50.125 NMAC.[155]

B. General requirements:

(1) The owner or operator shall ensure that all equipment is operated and maintained consistent with manufacturer specifications, and good engineering and maintenance practices. The owner or operator shall keep manufacturer specifications and maintenance practices on file and make them available to the department upon request.

(2) The owner or operator shall calculate the VOC and NO_x emissions from the facility on an annual basis. The calculation shall be based on the actual production or processing rates of the facility.

(3) The owner or operator shall maintain a database of company-wide VOC and NO_x emission calculations for all subject facilities and associated equipment and shall update the database annually.

(4) The owner or operator shall comply with Paragraph (9) of Subsection A of 20.2.50.112 NMAC if requested by the department.

C. Monitoring requirements: The owner or operator shall comply with the requirements in Subsections C or D of 20.2.50.116 NMAC.

D. Repair requirements: The owner or operator shall comply with the requirements of Subsection E of 20.2.50.116 NMAC.

E. Recordkeeping requirements: The owner or operator shall maintain the following electronic records for each facility:

(1) annual certification that the small business facility meets the definition in this Part;
(2) calculated annual VOC and NO_x emissions from each facility and the company-wide

[154] Davis testimony, IPANM Exhibit 2:19:2-16. Mr. Davis testified that a requirement to notify the adjacent residents via certified mail three days prior would delay the repair and restoration of production while making the activities less efficient and ultimately not result in any reduction of VOC emissions.

[155] Davis rebuttal testimony, IPANM Exhibit 10:28:10-22, 29:1-2. Mr. Davis testified that the cost of compliance with the proposed rule will disproportionately impact small business and lead to the premature abandonment of wells. Moving back to the stripper well and low PTE structure of the pre-proposal draft, while including the applicability of LDAR and the other requirements ensures that all wells are subject to a baseline set of requirements while not overburdening the stripper wells in the state. *See also* Tr. 3:899-912.

annual VOC and NO_x emissions for all subject facilities; and

(3) records as required under Subsection F of 20.2.50.116 NMAC.

F. Reporting requirements: The owner or operator shall submit to the department an initial small business certification within sixty days of the effective date of this Part, and by March 1 each calendar year thereafter. The certification shall be made on a form provided by the department. The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

G. Failure to comply with 20.2.50.125 NMAC: Notwithstanding the provisions of Section 20.2.50.125 NMAC, a source that meets the definition of a small business facility can be required to comply with the other Sections of 20.2.50 NMAC if the Secretary finds based on credible evidence that the source (1) presents an imminent and substantial endangerment to the public health or welfare or to the environment; (2) is not being operated or maintained in a manner that minimizes emissions of air contaminants; or (3) has violated any other requirement of 20.2.50.125 NMAC.

[20.2.50.125 NMAC - N, XX/XX/2021]

20.2.50.126 PRODUCED WATER MANAGEMENT UNITS

A. Applicability: Produced water management units as defined in this Part and their associated storage vessels are subject to 20.2.50.126 NMAC and shall comply with these requirements no later than 180 days after the effective date of this Part.

B. Emission standards:

(1) The owner or operator shall use good operational or engineering practices to minimize emissions of VOC from produced water management units (PWMU) and their associated storage vessels.

(2) The owner or operator shall not allow any transfer of untreated produced water to a PWMU without first processing and treating the produced water in a separator and/or storage vessel to minimize entrained hydrocarbons.

(3) Within two years of the effective date of this Part for storage vessels associated with existing PWMUs, or upon startup for storage vessels associated with new PWMUs, the owner or operator shall either:[156]

(a) control such storage vessels in accordance with the requirements of Section 20.2.50.123 NMAC that are applicable to tank batteries; or

(b) submit a VOC minimization plan to the department demonstrating that controlling VOC emissions from storage vessels associated with the PWMU in accordance with the requirements of Section 20.2.50.123 NMAC is technically infeasible without supplemental fuel. The plan shall state the good operational or engineering practices used to minimize VOC emissions. The plan shall be enforceable by the department upon submission. The department may require revisions to the plan, and must approve any proposed revisions to the plan.

C. Monitoring requirements: The owner or operator shall:

(1) develop a protocol to calculate the VOC emissions from each PWMU. The protocol shall include at a minimum: produced water throughput monitoring, semi-annual sampling and analysis of the liquid composition, hydrocarbon measurement method(s), representative sample size, and sample chain of custody requirements. [157]

(2) calculate the monthly total VOC emissions in tons from each unit with the first month of emission calculations beginning within 180 days of the effective date of this Part;

(3) monthly, monitor the best management and good operational or engineering practices implemented to reduce emissions at each unit to ensure and demonstrate their effectiveness;

(4) upon written request by the department, sample the PWMU to determine the VOC content of the liquid; and

(5) comply with the monitoring requirements of 20.2.50.112 NMAC.

D. Recordkeeping requirements:

(1) The owner or operator shall maintain the following electronic records for each PWMU:

(a) unique identification number and UTM coordinates of the PWMU;

(b) the good operational or engineering practices used to minimize emissions of

[156] This language is responsive to extensive testimony that supplemental fuel may be needed to control storage vessels associated with produced water management units. *See, e.g.,* Kim testimony, Tr. 7:2290:6-13. This may not be technically feasible and may not provide a net environmental benefit. Kim testimony, Tr. 7:2290:6-13.

[157] NMOGA supports CDG's proposed clarification circulated to the parties on December 16, 2021.

VOC from the unit;

(c) the protocol, and the results of the sampling conducted in accordance with the protocol; and

(d) a record of the annual total VOC emissions from each unit.

(2) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.126 NMAC - N, XX/XX/2021]

20.2.50.127 PROHIBITED ACTIVITY AND CREDIBLE EVIDENCE

A. Failure to comply with the emissions standards, monitoring, recordkeeping, reporting or other requirements of this Part within the timeframes specified shall constitute a violation of this Part subject to enforcement action under Section 74-2-12 NMSA 1978.

B. If credible evidence or information obtained by the department or provided to the department by a third party indicates that a source is not in compliance with the provisions of this Part that evidence or information may be used by the department for purposes of establishing whether a person has violated or is in violation of this Part.[158]

HISTORY OF 20.2.50 NMAC: [**RESERVED**]